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ART. I.—*Remarks on the Diseases of Ohio, in a letter to the Editors.* By JOHN DAWSON, M.D., of Jamestown, Ohio.

GENTLEMEN:—Supposing that you would like to know something of the diseases with which the interior of Ohio is visited at the present time, and having no leisure to embody my remarks in the form of an essay, I will give a mere epistolary sketch of some of the principal ones that have prevailed.

From the mouth of every body the report comes, that this is a *sickly season*, more so, in this section, than has been experienced for a number of years. Without doubt, I am inclined to think, that the report is correct. We have certainly more disease at present, than has been witnessed for a long time, perhaps ten years; and, indeed, some think more than has been, in any one year, since the country was settled.

As the diseases are chiefly of miasmatic origin, I will glance briefly at some of the circumstances connected with their prevalence in our district.

You are aware that we are situated on the table-lands dividing the waters of the Little Miami and Scioto rivers, and therefore pretty remote from anything like extensive alluvial deposits. In this region, the country is, however, level, and the streams running to each of the rivers are so shallow, that they have been inadequate to conduct off the water proceeding from the heavy rains with which we have recently been visited. The circumstances therefore have been what are generally considered favorable to the generation of malaria.

The past winter and spring were unusually dry, with a temperature decidedly mild. So great was the drought in May and June, that an entire failure of crops was anticipated. The latter part of the month of June, and all of July were attended with more seasonable weather, such as dissipated the fears of the farmer, and gave promise of a sufficient supply of all the necessaries of life. Since the seasonable weather commenced, we have been visited regularly with copious rains, and that too at short intervals. These have kept the vegetative process so very active through the months of August and September that almost every species of plant has attained a luxurious growth.

As the growth of plants was rapid, the work of decomposition commenced going on in the latter part of July, and as a consequence we have had more than the usual quantity of disease ever since. Indeed it has gradually increased until the number afflicted is said to exceed that of any one year since the country was inhabited. Among those diseases which have assumed the most importance, is

BILIOUS FEVER.

There has been very little of this disease in this region for the last four or five years. Old practitioners say, much less than formerly. I saw a few cases of it in July, more in Au-

gust, and in the month of September it seemed to attain its greatest prevalence. The *pyrexia*, as a general rule, has been decidedly inflammatory, the circulation being rapid, and in most cases the pulse very full; the skin hot and dry, and often very yellow. The alimentary canal was very susceptible to purgatives, though it exhibited no tendency to take on irritation and run into gastro-enteritis; nor was there much trouble from irritation in the stomach, giving rise to bilious vomitings. Disordered *liver* was prominent in every case, showing itself in bilious discharges from the bowels, a yellowness of the skin and eyes, and a brownish color of the coat on the tongue. The *duration* of most cases has been short. Three or four days has been sufficient, in a majority of instances, to bring the disease to a close. A few cases went into the typhoid stage, and lasted some fifteen or twenty days. These, however, were rare, and I think were due oftener to a want of medicines at the proper time, than to any peculiarity of the complaint, or of the remote cause.

Of the *complications* of this disease with the epidemic, (erysipelas) with which it was preceded in our neighborhood, I witnessed but little. Three cases that I saw were complicated with some of the phenomena of epidemic erysipelas. They yielded, however, as readily to remedies as any that I witnessed.

Into a lengthy consideration of the *treatment* it is unnecessary for me to enter. Bloodletting was premised in all cases where it seemed to be justifiable, as for instance in plethoric individuals, or where the action of the heart and arteries was such as to interfere with any of the great functions of life. When such was not the case, the treatment was commenced with emetics, (ipecac. and tartar emetic) or purgatives. As soon as the first passages were cleared, without waiting for any prominent remission in the symptoms, I gave quinine in five or six grain doses, in combination with carbonate of iron. This combination was generally administered in the morning, about two doses of which were taken every day until the fe-

ver subsided. The bowels were kept open with Seidlitz powder, neutral salts, or jalap.

Concerning the results of this practice, for it is the first time I ever adopted it, I may state—1. That the fever was of shorter duration than when treated by the ordinary method of elementary writers. 2. That it left the system more free from the *sequelæ* of either disease or treatment, and as a consequence the convalescence was more rapid; and what is of most importance, it was entirely successful, so far as tried.

The plan of treating bilious fever with mercurial cathartics and ptyalism, originated, likely, in the supposition that cholegogues to restore the functions of the liver would do more to check the disease, than anything exercising a more direct antipyretic effect. This motive, plausible as it may seem from the prominent share which the liver takes in the pathology of bilious fever, is about to be changed. The preparation of Peruvian bark, whether considered as an antiperiodic, or an antipyretic, contains something that neutralizes or serves as antidote to the poison of our autumnal fevers. This fact may be considered as well settled, not only in regard to intermittent and bilious remittent fever, but also in regard to yellow fever.

For experience to determine, a matter is still left. I allude to the *time*, during the course of the bilious fever, at which quinine should be administered. With all, I agree, that when a remission can be obtained, that is the most auspicious. When, however, there is nothing like a decided remission, which is very unusual, the medicine should still be given. The mornings should, I believe, be selected, as, *cæteris paribus*, the fever will be found less at that time, than at any other. Given even during the exacerbation less disturbance will follow than has been generally anticipated. At all stages of the fever I have administered it with impunity. When I can get a remission, of course, I prefer it. But I think we are not justifiable in waiting for it when the symptoms are urgent.

INTERMITTENT FEVER.

This disease made its appearance early in the summer, and I think attained its greatest prevalence in September. Usually it was of the tertian type. I witnessed, nevertheless, a number of cases of the quotidian, and a few of the *double* tertian. As a general remark the disease was not malignant. A few cases in our county assumed the congestive form, common in hot climates, and well described by Alibert. These, as far as I have learned, generally went to a fatal issue in two or three paroxysms. I attribute this result to the fact that this form of intermittent fever is of very unusual occurrence here, and as a consequence, neither the people nor the physicians are aware of its danger until it is often too late. I saw a case some years since in which the patient, for a week or two, had suffered from what he regarded as being an ordinary ague. At a certain time when he was expecting his chill, it came on followed by great congestion of the head and deep-seated organs of the body. He became delirious, with small pulse, cool extremities, laborious respiration, and slight heat of skin. In this situation he continued for about seventy-two hours and died. This was an ordinary case that degenerated into a malignant intermittent. Some, however, have occurred that were of the malignant character from the commencement.

Of intermittent fever complicated with erysipelas, I have seen but one case. For a while, this presented an array of very formidable symptoms, but under the use of medicines, addressed principally to the fever, it yielded.

Concealed intermittents, or what are sometimes termed "*masked agues*" have prevailed this season, under the form of periodic neuralgia of the face, side of the head, forehead, extremities, &c. These anomalous affections, I have no doubt, owed their origin to the same cause which produced the miasmatic fevers, for the means of cure were identical.

Into bilious continued fever, Armstrong says he has seen

intermittents frequently run. This is a result, that I have looked for with some degree of attention since these fevers have been prevailing, but as yet I have not noticed it to take place. The contrary, the termination of bilious continued fever in intermittent fever, has been a result, the present season, of frequent occurrence.

To the cause of these autumnal fevers inquiry has frequently been directed; but so far, such labor has been fruitless. One fact, however, in regard to this matter may now be regarded as settled. I allude to the identity of cause producing bilious continued and intermittent fever. There can be no doubt, whatever it may be, that it is one and the same thing which produces both fevers. This fact is of great importance in the treatment of bilious fever. Heretofore attention has been almost exclusively directed to the circulation, to the state of the secretions, and to the alimentary canal. Bark was scarcely thought of, unless the fever was first converted into an intermittent. Now we look upon the preparations of this article as being as salutary in the continued, as in the intermittent form of fever, and its introduction into practice, as being the greatest modern improvement, (the *feeding* plan of managing adynamic fevers, excepted) that has taken place in the treatment of fever.

A circumstance connected with the prevalence of these autumnal fevers, is that a region of country may be almost completely exempt from them for a number of years, when without any apparent cause or change of circumstances they may make their appearance again in almost the character of an epidemic. This region in 1839,–'40,–'41,–'42,–'43, suffered but little from bilious diseases of any kind, and particularly bilious fever. In 1844 we had none of them; and during the present year they have attained a prevalence hitherto unknown.

Intermittents are treated almost exclusively in this region with quinine. Some years since, I gave sulphate of zinc a trial, but in its effects I was disappointed. If it possesses any power to break up the laws which keep an intermittent

revolving in the system, this is but weak in doses that are admissible. I have given it frequently in combination with quinine to see if it would not be more powerful in preventing relapses. I can report nothing here in its favor. The black spider's web, so highly spoken of by Dr. Robert Jackson, I have tried in a number of cases without witnessing any benefit from its use. McIntosh's plan of bleeding in the cold stage has been practised here, and with very good results. When intermittents are congestive it is first rate practice, not only scientific but really successful. The administration, however, of quinine during the apyrexia, should not be neglected.

The treatment of the malignant intermittents which have appeared here, has differed in no very essential respect from that adopted in the mild form of the complaint. The plan of Drs. Fearne and Erskine of dashing cold water upon the surface, from the general fatality of such cases, demands a trial at the hands of every practitioner in the country. And, indeed the testimony already in its favor is such as to entitle it to general confidence.

CHOLERA MORBUS — CHOLERA INFANTUM.

Very few cases of either of these diseases, compared with former years, have been witnessed the present season. What few cases did occur were mild and easily controlled. The state of the alimentary canal has been generally healthy, less disposed to take on disease of the above character, or in the forms of flux or diarrhœa, than formerly. Even in fevers of pretty considerable violence its integrity has been easily preserved. This state of things contrasts very strongly with the predisposition of this apparatus to disease a few years since. Then we could treat hardly anything without having it complicated with gastro-enteritis, or more or less irritation of the mucous surface of the bowels.

In his work on Animal Chemistry, Liebig occasionally throws out a speculation on etiology. He says, "in our cli-

mate hepatic diseases or those arising from excess of carbon prevail in summer; in winter pulmonary diseases or those asising from excess of oxygen are most frequent." How is the former part of this paragraph to be understood? Does the philosopher of Giessen mean to say, that hepatic diseases, and hepatic complications are more frequent in summer, because at that season of the year there is the most carbon absorbed by the skin and lungs? Or does he mean, that there is an excess taken into the system during the summer months in the food?

By the experiments of Saussure it has been clearly ascertained that the proportion of carbonic acid in the atmosphere is greater in summer than in winter, more abundant in gloomy than in bright weather, more copious in elevated situations, as on the summits of high mountains, than in the plains. These are facts in regard to the eudiometrical condition of the atmosphere. But the question as to whether there is any of this substance absorbed by the skin and lungs, or more of it in summer than in winter, remains yet to be settled.

By the entire surface of the body as well as by the lungs, oxygen, as all know, is continually being absorbed; and carbonic acid from both skin and lungs is as constantly evolved. In summer, it is very certain that there is less oxygen absorbed, and as a consequence there would be less carbonic acid evolved. This would leave the relative proportion of carbonic acid arising from the metamorphosis of the tissues in excess in the system, and therefore would be equivalent to a direct absorption. On such an hypothesis there might be an excess of carbonic acid in the system during the summer. Here, however, a query might be raised to know whether in a diminished supply of oxygen the work of metamorphosis would go on so as to produce in the blood for elimination an excess, or superabundance of carbonic acid? It seems to be pretty well settled that a metamorphosis giving rise to waste in the tissues, is in a direct ratio to the amount or quantity of oxygen absorbed. In an atmosphere rich in oxygen, or where the respiratory function is increased above the healthy

standard, there is always a greater waste of the tissues than where these circumstances are not present.

What now are the facts concerning the relative proportions of carbonic acid taken into the system with the food in summer and in winter? The food of the inhabitants residing in cold or Northern latitudes, as for example, in Sweden and in Kamschatka, contain from sixty to eighty per cent. of carbon, while that upon which the natives of the South prefer to feed does not contain more than twenty per cent. During the summer months, the inhabitants of temperate climates use principally fresh fruits as food; but in winter bacon and other articles rich in carbon are consumed in greatest abundance. The former contain from twelve to twenty per cent. of carbon; the latter from fifty to eighty.

According to such facts there is less carbon taken into the system in summer, the period of the greatest prevalence of our hepatic diseases, than in winter. It might be urged, however, as the activity of the respiratory process is considerably diminished during warm weather, that, therefore, the system is unable to assimilate what carbon is taken in with the food, so as to be eliminated by the skin and lungs. But then it may be replied, that the diminished condition of the respiratory function, is such as that it merely corresponds with the diminished proportion of carbon in the food.

According to the same author, the office of the liver is to separate the carbonized constituents from the blood, not for excretion, as some of the most profound physiologists of the present day suppose, but for the purpose of preparing it to re-enter the circulation, from whence it passes out of the system by the respiratory function. Whatever, therefore, interferes with the secretions of the liver exercises an influence over the proportions of carbon present in the system. Hot weather, we know, is attended with diseases of the liver; but whether these result from deficiency or an excess of the quantity of bile secreted is a question that, as far as we know, has not

been decided.* If the bile, in the normal state of the system, is not excreted, as our author supposes, of course no conclusions founded on the mere retention of it in the system, as the cause of hepatic diseases, would be relevant. Again, to conclude, that the bile during summer is secreted in excess, implies that at this period the blood from which the secreted fluid is obtained, contains it in excess, an inference certainly unsupported, if as we have seen, the food during summer contains but a small proportion of carbon, and there is none at all of it, at any season of the year, that gets into the blood through either the skin or lungs.

When either the function of the skin or of the lungs is interrupted, compounds rich in carbon make their appearance in the urine, giving to that fluid a brown color. (Liebig.) Eminently both of these functions are disturbed in our autumnal fevers, and as a consequence we have the excess of carbon in the urine. Most likely the presence of this carbon in the urine is due to a deficiency of oxygen resulting from the pathological condition of the two most important inlets by which that substance finds access to the system. This being the case, the unoxydised carbon proceeding from the waste of the organs, as well as that arising from the food would necessarily seek an outlet through some of the emunctories. If this view be correct, the presence of carbon in the urine can be regarded in no other light than that of an effect of previously existing disease.

Finally, if our autumnal diseases, in which derangements of the liver are most conspicuous, arise from excess of carbon, the primary and most important indication of cure would seem to be, to administer something by which the carbon might be purged from the system. Instead of doing this

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* It is the general opinion of physiologists, that heat increases the biliary secretion. But the presence of bile in various parts of the body, as seen in jaundice, and in our autumnal bilious diseases, results, most probably, from some mechanical obstruction in the appendages of the liver.

we use quinine, containing about *seventy-five per cent. of carbon*, and find it to be the nearest approach to a specific that is employed in the practice of medicine.

Having established it as a fact, by an experiment made on himself, that *benzoic* acid is capable of being converted, in the human system, into *hippuric* acid, Liebig says that it "places beyond all doubt the position that a mere azotised substance taken in the food can take a share, by means of its elements, in the act of transformation of the tissues, and in the formation of a secretion." "This," he continues, "throws a clear light on the mode of action of the greater number of remedies; and if the influence of caffeine on the formation of urea or uric acid should admit of being demonstrated in a similar way, we should then possess the key to the action of quinine and of the other vegetable alkalies."

Jamestown, Ohio, Oct. 10, 1845.

ART. II.—*An Essay on the Mucous Membranes.* Read before the Medical Society of Tennessee, in May, 1845. By JOHN OVERTON, M.D., of Nashville, Tenn.

At the last meeting of the Society I promised to submit to the present session a dissertation on some subject properly included within the domain of medical investigation. In the redemption of that promise, I have chosen for the subject of the few observations which follow, the *mucous membranes* of the human body, as they are constituted and distributed in its ordinary construction.

The membranes of the human body considered collectively, and as constituting a system of organs distinguished by the character and strong analogy of their organization and function, may justly be esteemed a subject of pre-eminent importance to the medical profession; and consequently en-

titled to receive a greatly augmented portion of professional research and reflection.

It is a subject of import, much too broad to be reduced within the limits of an essay like the present, and I have therefore deemed it proper to refer merely to the ample and interesting field which it opens to medical inquiry, abstaining from any examination of its important and multitudinous details, which would be incompatible with the single object proposed by this paper; of which the almost exclusive design is to engage, if I may, in some greater degree, the professional attention of my State to the study of the mucous membranes in their healthy and pathological conditions.

The obscurity of situation, and the minuteness of their physical structure, together with the less prominence of their functions in the human economy, have operated chiefly to deprive these organs of the early and thorough examination which, in the progress of medical science, the profession has given to other organs and functions of greater prominence and palpability of anatomical and physiological character, but not greater importance in the animal economy to the perfect and healthy execution of its various and wonderful functions.

It is from these causes, perhaps, more than from any other, that for a long succession of ages, anatomy, even, had achieved no exact ideas in relation to these membranes. Other portions of the human body had been exactly demonstrated, and their uses and functions clearly ascertained, whilst an impenetrable cloud still veiled from professional comprehension the structure and functions of this highly important class of organs in the animal system. None had imagined that by their assemblage they constituted a distinct and important system of organs; their varieties even were imperfectly or not at all recognized and designated; and they were hence, often, in anatomical description, confounded with other tissues of dissimilar character. It is true that many of the individual membranes, occupying special localities of the body were early noticed and anatomically described; but any suc-

cessful attempt to arrange the different membranes of the body into a distinct system of organs, to fix beyond the reach of future question their physical structure, functions, and various pathological states and relations, both healthy and diseased, was denied to the earlier cultivators of our art; and was only to be consummated by the more technical processes, and recondite reasearches of modern investigators.

Until within the last twenty-five or thirty years, the knowledge of the profession in relation to the membranes of the body, was restricted to a few isolated facts, which contributed nothing, or but little, towards any thing like valuable results for the improvement of practical medicine, and could be looked upon chiefly, if not exclusively, as evidences only of anatomical curiosity, fruitless of any valuable influence upon the science of healing diseases.

Upon this chaos, which had lasted for so many ages, in reference to this greatly important subject of medical research, the labors of the profession had conferred neither system nor order. Everything remained, of what little was known, in wide dispersion over the entire field of medical inquiry, without system or profitable consequences to the profession, when the observation fortunately occurred to Mr. Pinel, that the diseases of the different membranes of the body were connected with each other by close and intimate relations; and that these relations were in subordination to the greater or less identity of the anatomical structure of the different membranes in which they obtained. This parent observation of a single man, distinguished for the strength and perspicuity of his intellect, and animated by a laudable zeal for the advancement of medical science, has given birth to doctrines and practice in medicine, of whose extent and importance it is difficult if not impossible to form even an adequate conception.

An idea destined so palpably to exercise an important influence upon practical medicine, could not be overlooked, or fail to attract the early and serious attention which it so

justly merited from the profession. Mr. Pinel, as before intimated, had established upon a basis of well conducted observation, that the different membranes of the body were grouped by nature into distinct classes and orders; and that the diseases to which these different classes and orders were liable, were marked by identity of character and features, in accordance with the class or order of membranes in which they occurred—that phrenitis, pleurisy, and peritonitis, for example, are inflammations of the same class and order of membranes, and that their diseases are characterised by phenomena which are common to them all, and which demand for their cure, correspondently identical or similar therapeutic treatment.

These are, however, inflammations of serous membranes, occupying, it is true, distinct and widely different portions in the system, but notwithstanding this distinction, identical in their anatomical structure, functions, pathological liabilities, and thearapeutical relations. The same, or similar relations, were established between other classes of membranes, as coryza, pulmonary catarrh, leucorrhœa, and some diarrhœas, all of which being inflammations of the mucous membranes, were distinguished by common features, giving ample indication of the identity of organization of the parts in which they were located, and of the generic and similar therapeutic treatment, best calculated to insure their restoration to health when in a morbid state.

Pathological anatomy and therapeutical experience in subsequent practice added their reliable testimony to those inceptive opinions of Mr. Pinel—the professional mind stimulated by these fortunate views and observations of their illustrious author, was suddenly roused from its long stupor and neglect of this highly interesting, and till then unbroken field of medical research; and the study and investigation of the membranes soon became a subject of popular and profitable pursuit to many eminent members of the medical profession.

It constituted an important and imperishable epoch in the progress of medical science, and has contributed to an extent

not easily to be sufficiently appreciated, towards the establishment of the present improved state and character of medical practice throughout the entire range of its exercise. It may be affirmed, it is believed, with but little hazard of successful contradiction, that no one discovery, save that of the circulation of the blood by Harvey, has done more towards the cure of diseases, and mitigation of human suffering, than this brilliant and incalculably valuable observation, first made and subsequently established to the imperishable renown of its illustrious author. Harvey, Pinel, and Bichat were congenial and kindred spirits, and have each left inscribed upon the pages of medical history, monuments of intellectual triumphs more durable and brilliant in their material, than Parian marble, or the celebrated brass of ancient Corinth—monuments which defy the power of corrosive time to deface or destroy, and which naught but the overwhelming might of ignorance and barbarism will ever again conceal from the gratitude and admiration of the world.

They may, it is admitted, be obscured and fall into comparative neglect for a time, under the influence of other popular and apparently contradictory doctrines and facts in medicine, but their permanence and value are established upon the solid rock of exact observation and sound and logical induction, and cannot hence be overborne by the power of time or scrutiny. They will stand in all future time as fixed points, as beacon lights, upon the ocean of medical science, to direct the course of the puzzled and benighted practitioner into the haven of safe and successful medication.

Too much praise cannot be ascribed to Mr. Pinel and to his contemporaries and immediately succeeding co-laborers in this very important department of medical research.

But the special object of this paper being to ask from the profession some greater attention to the mucous membranes, it may be esteemed irrelavent, or an improper digression to give further extension to remarks on the membranes in general. Enough has been said, it is thought, to indicate their vast importance to the medical practitioner, and as necessari-

ly and intimately connected in structure and function, with the individual class of membranes which is the special object of this essay.

Nor will it comport with the distinction imposed by the present occasion, to enter upon any detailed anatomical description of the mucous membranes, in connection with their physiological functions.

Such an examination would involve a task greatly too extensive and important in its character, to be executed with profit upon the present occasion, but which merits to receive the most careful and profound attention of him who is engaged, or designs to be occupied, with the treatment of human diseases.

Leaving then untouched the anatomy and physiology of the mucous membranes, as objects too extensive and important to be condensed within the narrow scope of this paper, I deem it proper to confine myself to some of the more prominent characters of vitality, by which the mucous membranes are distinguished in their normal and diseased states; and to indicate merely the localities upon which these membranes are chiefly distributed in the human body.

The mucous membranes of the body are chiefly occupied by the investment of the internal surface of the intestinal canal, including the entire tube, however diversified in its structure, functions and form, which reaches from the mouth to the anus; the internal surface of the trachea and bronchia of the lungs; the internal surface of the urinary bladder and urethra in man, and the vagina and uterus in woman; and the nose and nasal fossæ; together with the cutaneous tissue which covers the external surface of the body, and which on many accounts may be considered a mucous membrane, modified in aspect and function by diversity of location, uses, and the peculiar physical agencies with which it is perpetually in contact, and which are aptly constituted to excite its activity.

From the strong analogies existing between the mucous

membrane and the skin, the former has been, as it is thought, aptly denominated the internal skin, as a distinction which may profitably indicate its similarity of anatomical structure and physiological function—the mucous membranes performing for the hollow organs, upon whose internal surface they are distributed, an office closely analogous to that of the cutaneous tissue upon the external surface of the body. The intimate relations existing between these two surfaces, has been noticed and admitted by most accurate observers of the functions of human life, and merits a full share of the attention of every medical practitioner. It is a subject for investigation, which cannot be easily over estimated, as a guide to the therapeutical treatment of many important maladies. It should be diligently considered and carefully respected, in every process intended for the preservation of health or the modification of disease.

The intimate and important relation of the mucous membranes with the cutaneous tissue is most palpable, and best understood, as it is exhibited in exanthematous diseases, in measles and scarlatina, and other similar affections.

In these, it has been clearly demonstrated, by the labors of those engaged in the cultivation of pathological anatomy, that the cutaneous affection, which until recently, has been considered as primary and essential, is only symptomatic of the real malady, which consists in an inflammation, or at least in violent irritation, of the mucous membrane of the stomach and bowels; and which in their progress excite into analogous morbid activity, the cutaneous tissue which is the seat of the visible eruption on the surface of the body. The disease is *internal* upon the mucous membrane, its visible effect, or symptom, or evidence of its existence, is *external*, upon the surface of the skin. But this eruption upon the skin, is symptomatic only of the real disease within, occupying the mucous membrane, and hence, in the medication of these diseases is entitled to receive an attention from the practitioner regulated and limited by a fixed estimate of its subordinate

importance in the real character of the malady, of which it is merely an external and visible symptom.

Other sympathetic relations of a character less palpable, are known to exist also between the different mucous membranes of the body and the cutaneous tissue, by which it is invested; they are numerous and important in their influence, both in health and disease, but need not, it is thought, be enumerated in the present connection. Let it suffice to remark, as worthy of all attention, that the structure and functions of the mucous membranes, and those of the skin are related by analogies which are close and important, and which might well have intimated in the absence of other testimony, the many sympathies which exist necessarily between them, in their states both of health and disease.

Thus it appears from anatomical examination, that the external surface of the mucous membrane is, like the skin, covered by an epidermis of analogous anatomical structure, and designed to do an office in defending the nervous papillæ of the membrane from the too rude impressions of agents with which it may be brought in contact, remarkably similar to the functions of the epidermis on the external surface of the cutaneous tissue. This analogy in structure and function of the two tissues, is strikingly close; so much so as to have induced the belief of their probable identity—an idea which has drawn support of no feeble power also from the similarity of the phenomena presented by both, in many of their morbid states, all tending to the conclusion, that the mucous membranes and the skin are identical in structure and functions, with the diversity only in both, which may be attributed to different location, and the diverse physical qualities of the objects with which they are usually in contact.

The resemblance of structure and function alluded to, may with sufficient accuracy, be likened to the almost identical structure and function of the bark of the stem or trunk, and that of the root, which obtains and is manifest to common observation in trees and other vegetables.

The bark upon the roots of trees and other vegetable bodies performs an office for the entire being, stem, branches, and organs of reproduction, very analogous, if not identical with the mucous membranes or internal skin in man and other animals. They both are designed to assimilate and unite to their organism, the heterogeneous elements of other substances with which they are placed in contact, and that too by a process similarly noiseless and unobtrusive in their modus operandi. The organic agent in both vegetables and animals—the root-bark in the one, and the mucous membranes in the other, are alike withdrawn from common inspection; and give evidence only of their actual condition by effects produced upon portions of their organism, often placed at a considerable distance from the organ whose activity has produced them. Thus we judge with much accuracy of the health of a horse, a man, or a tree, by the condition of the skin in the first instances, and of the bark or trunk-skin in the second.

But the condition of the skin in animals, and that of the trunk bark in vegetables, are both dependent upon and owe their existence, to the actual condition of mucous membranes in the one, and root-bark in the other; and observation has established the fact, that from a knowledge of the condition of the former, we may accurately deduce the actual condition of the latter; when the skin of animals is smooth, pliable, and soft, with a healthy transmission of insensible perspiration, we confidently infer that the assimilating organs, as the stomach and bowels, and the organs of respiration, are in a healthy condition. And in like manner, when the bark of vegetables is smooth, soft, and shining, we justly infer that the root is healthy and in the exercise of its healthy functions—functions which are exclusively performed by its cortical portion, without perhaps the slightest assistance from its central or ligneous portion, which serves only to give form and support to the assimilating organ, constituted by the root-bark. There is still another analogy between the relation which the root-bark in vegetables bears to the common bark of their stem and branches, and the relation of the mucous

membrane or internal skin in animals with the cutaneous tissue, which forms the integument of the external surface of their bodies. If the roots of vegetables, and especially of trees, be elevated above the ground, leaving, however, a sufficiency of them in contact with it, to sustain the vitality of the individual which is subjected to the experiment, the portion of the root thus elevated and placed in constant contact with the atmosphere, loses in a short time, its primitive thin and delicate texture, with its loss of former function, and assumes the firmer and rougher texture of the common bark of the trunk or stem, from which it can no longer, but with great care, be distinguished by any of its physical qualities.

Something strikingly analogous to this occurs in changes of texture in the mucous membranes of animals when displaced from their normal situation, and subjected to the operation of causes identical with those which act habitually upon the cutaneous covering of the external surface of the body; the mucous membrane thus exposed to the constant impression of the atmosphere, loses much of its natural soft, pulpy, and delicate texture, and assumes an aspect and apparent function greatly analogous to that of the external skin; thus, like the root-bark of vegetables, undergoing a modification of structure no greater than is necessary for its accommodation to the altered location and circumstances it has been accidentally placed in.

It is also well ascertained that the bark of the stems of trees may be made, by placing them under ground, to assume the aspect and function of the root-bark of the same tree—a fact clearly convincive of the great similarity, if not identity of their structure, which alone can explain their mutual convertibility, the one into the other, by mere change of external causes operating upon them.

Similar observations, so far as I am informed, have not been made showing the convertibility of the mucous membrane into skin under peculiar circumstances, into a structure identical with, or greatly similar in structure and function to the cutaneous tissue; but some facts are not wanting

to induce a belief of a similar convertibility of mucous into cutaneous tissue when placed in situations favorable to such a result. The retroverted uterus, for example, when placed in permanent contact with the atmosphere, loses its soft and delicate texture and acute sensibility, and becomes cutaneous in its aspect and vital properties. A cutaneous surface similarly changed in its locality, may reasonably be expected to undergo a similar change of aspect and function, as from that of the skin, to the aspect and functions of a mucous tissue.

The mucous membranes are abundantly supplied with bloodvessels and nerves, the latter of which owe their origin partly to the brain, but chiefly to the great sympathetic, or nerve of organic life. The membranes, consequently, whose activity is chiefly devoted to functions appropriated to organic life, have but little sensibility when compared with most other parts of the system, but are largely endowed with the property of irritability, by which their healthy functional activity is almost exclusively subordinated in the economy of animal life.

The distribution of the blood to the surface of the body invested by mucous membrane, is effected almost exclusively through the instrumentality of those very minute bloodvessels which, because of the extreme tenuity of their structure, have been distinguished by the significant appellation of capillary bloodvessels. Few, if any, large arterial or venous trunks are to be found penetrating the substance of these membranes, and hence their comparatively pale complexion, and in some degree their inferior sensibility in their healthy states.

When we consider the structure and normal functions of the mucous membranes in the economy of animal life, it would seem difficult to avoid the conclusion, that they are entitled to receive the most diligent and profound investigation of every medical practitioner. And this estimate of their importance in the animal economy is greatly enhanced, when it is known that one of the most modern and popular theo-

ries of fever, makes this greatest scourge of our race to consist in a morbid change in the condition of the mucous surfaces of the gastro-intestinal canal, and that all its usual and more palpable phenomena are but sensible indications of the extent and intensity of these internal morbid changes, which are its proximate though hitherto unknown cause. M. Broussais, who is the illustrious author of this theory of fevers, usually termed idiopathic, but which he has affirmed to be symptomatic only of morbid conditions of the mucous membrane of the gastro-intestinal canal, cannot be charged with having preferred any railing accusation against the verity of anterior systems, but has sustained the positions which he has taken, by evidence drawn from sources, the credit and competency of which it is thought none will be found so illogical or obstinate as entirely to reject, or esteem as of little worth. The Broussain theory of fever which assigns as the proximate cause of this malady an inflamed condition of the mucous membrane of the gastro-intestinal canal, however obnoxious to the objection of being over exclusive in its character, has nevertheless done much towards the establishment of the present improved treatment of febrile diseases.

The comprehension of this theory—of its value and deficiencies—depends essentially upon a thorough acquaintance with the structure, functions, pathological states, and therapeutical relations of the mucous membranes. And should it ever be demonstrated by future research, that the proximate cause of fever consists in obstructed capillary circulation, which is the opinion of the writer of this essay, the investigation of these membranes will fully maintain its relative importance in medical practice, inasmuch as the surfaces under consideration, are abundantly supplied with capillary bloodvessels, and are constantly exposed to the impression of physical and moral causes, peculiarly fitted to derange or obstruct their healthy circulation.

Nashville, May 1, 1845.

REVIEWS.

ART. III.—*Elements of Materia Medica and Therapeutics.*—By JOHN P. HARRISON, M.D., Professor of Materia Medica and Therapeutics in the Medical College of Ohio. Vol. II. Philadelphia: Thomas, Coperthwaite & Co. Cincinnati: Desilver & Burr. 1845. 8vo. pp. 619.

We resume our notice of this work, the second volume of which came from the press a few weeks ago. The most highly elaborated chapter in this volume is the first, which treats of bloodletting. The author has brought together a great number of opinions, speculations and facts, relative to this curative process, affording the student an opportunity of seeing how discordant have been the views entertained of its value, and of the circumstances under which it should be practised. Celsus, we learn, "calls bloodletting the *optimum remedium;*" and Galen was not only "much addicted to the use of this powerful evacuant," but "transcended the points of its practical application laid down by his great master, Hippocrates." In all times it has been a favorite remedy with the profession; few physicians of any note have absolutely proscribed it, but some have gone so far as to interdict its use under all circumstances. Lest we should be suspected of having allusion to living characters we quote from Dr. Harrison, who informs us that—

"Van Helmont, upon very absurd hypothetical grounds, denounced this valuable means of cure. Chemical figments of disease so possessed his cultivated mind, that every sound deduction of observation was displaced by the erring light of

an erroneous theory. Burserius trod, in servile imitation, in the steps of his predecessor, in opposing the claims of this remedial measure. From a groundless apprehension that concoction might be interrupted from an abatement of the 'brisk febrile motion, and degree of heat,' proper to that end, they eagerly traduced the beneficial tendency of bleeding in febrile and inflammatory attacks."

Concerning the mode of drawing blood by cups, our author has a suggestion which may be new to some readers; he proposes a sharp razor and a tumbler as substitutes for the more elaborate and costly apparatus commonly in use, and the preference, we have no doubt, would generally be wise, for the common scarificator is apt to be so dull that the operator attempts in vain to incise the skin with it, where the parts are yielding, as, for example, over the abdomen. The razor, in such cases, would not fail. But we do not agree with our author that the preference of many practitioners for leeching, over the other method of local bleeding, is "extravagant." Circumstances there are, unquestionably, which render leeches ineligible, but under many other circumstances, which will occur to the mind of the reader, no other process of depleting can be adopted with so much comfort and advantage. It is unfortunate that they cannot be obtained by the majority of practitioners in the country; but wherever they are accessible we have found that they are in high repute with the sick, as well as their medical attendants.

The criteria by which we are to judge of the expediency of taking blood in disease, Professor H. lays down as five: "the pulse; the pain; disturbed functions; appearances exhibited by the blood; and tolerance of loss of blood." The question of abstracting the vital fluid is one, he says correctly, of great magnitude, and consistently with that view of the subject he devotes nearly two hundred pages to its consideration. He prefaces his observations on the several points just referred to by the following remarks:

"Bloodletting is an agent of great compass and efficiency in the cure of human maladies. It is our chief remedy in

the severer forms of inflammatory seizure. Its power is familiar to the surgeon, to the accoucheur, and to the physician. The general practitioner, who combines in his own personal labors the duties of the surgeon, midwife, and physician, goes armed on all occasions with the appropriate instruments for drawing blood, and has recourse to them with a freedom and boldness which show that his reliance on this great therapeutic resource is of no doubtful character."

On the first head of his subject—the pulse—Dr. H. has collected a good deal that is curious in medical opinion and experience. Among other things of the sort, he alludes to the wish of Dr. Rush, that "the Chinese custom of prescribing from feeling the pulse only, without seeing or conversing with the patient, were imposed upon all physicians," which he pronounces "quite ultraism, upon a point in which we should exercise great calmness and reserve of judgment." Having got through with the literature of the subject, he goes on next to consider the physiology of the pulse, into which, however, we shall not follow him.

"What are the pathological states of the pulse?" This is the important question which comes next in order, and his division of the pulse is as follows:

"1. A full, slow, vigorous stroke of the artery.
"2. A full, tense, and frequent pulse.
"3. A hard, incompressible, quick pulse, feeling like a tightly drawn cord.
"4. A soft, open, compressible pulse.
"5. A small, rapid, and weak pulse.
"6. A creeping, soft pulse."

Upon the several varieties of the pulse as guides to the abstraction of blood, our author gives judicious cautions to the young practitioner, insisting, with entire correctness, that the pulse by itself cannot be regarded "as a nosometer." It may mislead in diseases of the heart, in gastritis, meningitis, rheumatism, and oppressed states of the system generally—indicating depletion where the remedy is not proper, and seeming to forbid it where it is called for. All that affects

the pulse, therefore, must be attentively considered by the physician at the bed-side. The posture of the patient must be regarded, the state of his mind, the time of day, the age, sex, temperament of the subject, the seat and character of his disease, and the nature of the remedies previously given; all of which is pointed out under the head of "*directions for feeling the pulse.*"

The next indication is *pain;* but this may consist with opposite states of the system, and must be attentively considered before we decide upon the lancet as the means of removing it. Our author's views on this point are thus expressed:

"Plethora and anemia, congestion and bloodlessness, accumulation and decrease of action, may excite pain. The harmonious relation existing in a normal condition of the body, between the nervous and vascular systems, general and capillary, being broken by an essential departure from the quantum of blood, evinced either by increased or diminished distention of the sanguiferous tubes, pain will often be the result. Pain is most apt to arise when this relation, and reciprocative play, of the nervous and vascular systems are suddenly broken up, or disturbed. Thus a rapid nutrition, or a great loss of blood will excite pain in the head, which may portend serious encephalic disorder."

Disturbed function as indicative of the propriety of bloodletting. We have examples of this in the delirium attendant upon disease of the brain, in the painful respiration symptomatic of pleurisy and pneumonia, and in the convulsions of children originating in various causes. There is truth in the assertion of the author that—

"Deranged functions, when fairly interpreted by the lights reflected from the other phenomena of morbid action, will essentially conduce to a just inference as regards the expediency of vascular depletion."

The next indication—*the appearances of the blood*—our author discusses at considerable length. With Heberden he holds, that as diseases have not their seat in the blood, so its

sensible qualities have but little relation to them. In like manner, also, he rejects the idea, that the blood possesses vitality. He says—

"To talk of the distinct organization of the blood is gratuitous mysticism in anatomy. To assert that the blood exhibits the same vital phenomena, and is possessed of the same endowments of sensibility and irritability as the solids, is transcendental, and staggers all belief."

The true conception of the blood we take to be that it is the pabulum of the system—the fibrin and albumen, of which the various organs and tissues are constructed. As to the mind of our author, so to us there is something gratuitous in the assertion, that it is endowed with the vital properties of the solid parts of the body.

The author is certainly safe in rejecting the appearance of the blood as a certain or safe index of propriety of bloodletting. Pathologists are busily engaged in the investigation of the blood as affected by disease, and results, we may hope, will be brought out affording us accurate and applicable tests for determining the character of the affection and the kind of remedies demanded; but all our knowledge on that subject at present is rather curious than practical. Other tests besides the buffy coat of the blood must be brought to our aid in all questions as to the expediency of bleeding. Dr. Harrison dwells upon this subject, and his conclusions are sanctioned by the experience of the profession.

Tolerance of loss of blood is the last index of our author to the propriety of further bleeding, and on this point, as on the last, his views are such as practical men must generally approve. He condemns the practice of bleeding to syncope, except in cases of urgent necessity, and adduces a host of arguments against, it any one of which might well give the inexperienced physician pause.

Circumstances which modify the effects of bloodletting; these are indicated in the next section and will receive the attention of the student; but we pass over them to section V.

which treats of the *practical applications of bloodletting*. The author cites the following cases in illustration of the large amount of blood which may be drawn with safety to the patient, in certain forms of disease:

"Extraordinary quantities of blood have been detracted from patients affected with cerebral inflammation. Ninety ounces of blood were taken at one time from Dr. Dewees by Dr. Physick, in severe cerebral disease. Dr. Dewees drew 120 ounces within five or six hours, and 20 more on the following day, from a patient affected with puerperal convulsions. In another patient, similarly affected, he took 30 ounces at one bleeding. These patients all recovered."

This whole subject—the lancet in inflammatory affections—is well treated, and the student will find in the admonitions of Dr. H. safe rules for managing a most formidable class of diseases. He says, truly in regard to bleeding in rheumatism—

"Professor Bouillard errs in the excess to which he carries sanguinous depletion in acute rheumatism. We are to remember the liability of this affection to a transference to the pericardium, and reflect that blood may be drained away, until, as Dr. Barlow remarks, the body is blanched and the crassamentum reduced to a tithe of its just proportions, yet febrile action will continue, inflammation be unsubdued, and the blood drawn be still buffed and cupped."

Among the maladies not curable by the loss of blood, our author mentions tetanus, and, in the following language, hydrophobia:

"Hydrophobia has been subjected to the entire ordeal of pharmaceutic powers, from bleeding to *deliquium animi*, down to the infinitessimal doses of the *ars homœopathia*—through mercury, arsenic, prussic acid, &c.—and yet it remains a standing testimony to the fallacy of all human contrivance to subdue its unmitigable mastery over life. Prevention, by early excision of the bitten part, is the only expedient that promises aught in this terrible malady."

In regard to the employment of the lancet in fevers, we must content ourselves with quoting the circumstances mentioned by our author as indicating its necessity; they are:

"1. High vascular action, denoted by great thirst, urgent heat of the skin, and full strong pulse. 2. great determination to the brain, evidenced by pain, throbbing, and exaltation of sensibility in the sense of sight, or hearing, or by delirium, convulsions, or coma. 3. Intense gastric irritability, denoted by incessant vomiting. 4. Obstinate constipation. 5. Hemorrhage from the stomach, lungs, or bowels. 6. Suppression of urinary secretion. 7. Threatened abortion in pregnant women. 8. Tenderness upon carefully conducted abdominal pressure. 9. Intense pain in the back. 10. Red tongue, with epigastric oppression."

The sentiment of Prof. H. is a just one, that the only safe indications of cure in fever are the symptoms. If we suffer preconceived notions to shackle or mislead us, the symptoms will address themselves to us in vain. We have then eyes, but see not; ears, but hear not; as earnestly declared by our author—

"No abuses are so pregnant of evil as those trenched in the strong holds of an irrefutable theory. Let the young physician be instructed by the errors of his predecessors on the blandishments of any universal scheme of doctrine, which looks only at half of the difficulties of a question, and which obliges its defender to put himself in an attitude of resistance to every fresh accession of information on certain debated matters."

To the consideration of bloodletting in diseases, succeeds a valuable section on the *morbid effects of the loss of blood*, with which the chapter appropriately closes. The importance of the topic commends it to the attention of every practitioner. Much discrimination is necessary in the use of the lancet, and the question, how far the symptoms are incident to the disease, or consequent upon the depletion, is one by which the physician is sometimes seriously perplexed.

There are auxiliaries to bleeding, and substitutes for it, in febrile and inflammatory diseases; these are enumerated by Prof. H., and are:

"A strict regulation of diet, perfect rest in a horizontal position, the protracted application of cold to the surface of the body, the use of cold drinks, the exhibition of nauseants and emetics, purgatives, and of mercury."

Of cold water he says—

"The affusion of cold water to the general surface in fevers accompanied by high arterial action, indicated by quickened pulse and hot, dry skin, stands conspicuous among the successful measures to subdue the febrile orgasm.

"Cold water as a drink is a valuable auxiliary to bloodletting in fever, and various inflammatory affections. Especially where gastritis portends, ice water is a most efficient auxiliary in the reduction of the general excitement, as well as gastric hyperæmia. An error is sometimes committed in the excessive quantity of cold water allowed in such cases. If the stomach becomes inordinately filled with water, oppression and much distress, with an aggravation of the constitutional disturbance, as well as local difficulty, will ensue."

We should say, as a general rule, let the patient have cold water *ad libitum;* if his stomach be oppressed by it, he will vomit, and thus, if not positively useful, it will do no harm. Still there are cases where this indulgence might be pernicious; experience must decide under all circumstances.

At length we reach the second chapter, which treats of *emetics.* This is introduced by a dissertation on the physiology of vomiting. We agree with Prof. H. that emetics do not act by being absorbed into the circulation, but by their peculiar impression on the nerves of the stomach. How the contents of the stomach are ejected—whether by the contraction of that organ itself, or by the contraction of other parts upon it—is still a matter of dispute. Magendie has attempted to show by experiment, that the stomach is inert in the process of vomiting; Maingault has performed other experiments to prove that vomiting may take place after the

division of the diaphragm and abdominal muscles. Upon this our author has these words:

"Now, let us not be misled by these experimental vivisections. In our view they demonstrate too much, and therefore only prove what may be done under the unnatural conditions present. To vomit without a stomach, or to vomit without the aid of the diphragm and abdominal muscles, may answer for a poor lacerated, mutilated dog, but to adduce such experiments as proofs of what occurs as a physiological function in man is neither evidential of sound induction, nor are such data to be relied on as furnishing the axiomata of a safe medical creed."

The management of emetics, their practical employment, the diseases in which applicable, and their combination with tonics, stimulants, narcotics and other medicines, together with a description of individual emetics, make the subjects treated in this chapter—a chapter abounding in just views, and details of practice in which the student will find valuable instruction. If any one should be disposed to object to the details as being unnecessarily minute, it should be remembered that this work was written for students, and was meant to be elementary. The following passage, descriptive of the fate of antimonial remedies, is in the style of the "*Triumphant Chariot of Antimony.*" Says the author, referring to the popularity conferred upon antimony by this immortal work of Basil Valentine—

"But from this noon-tide of reputation, the remedy was doomed, for a while, to sink, beneath the proscription of the Supreme Council of Paris, which fulminated against it a furious edict in 1566, and in obedience to which Vandal objurgation, Besnier was expelled the Faculty of Medicine, for having had the temerity, contrary to the Galenical or exclusive vegetable doctors of the day, to administer it to a patient. For some years, antimony lay concealed beneath the opprobrium thus cast upon it, till, slowly emerging from its obscure and proscribed state, it gradually rose to a high position among the leading articles of Materia Medica. Cullen of Scotland, and Fordyce of England, contributed much in advancing the reputation of antimonial preparations, and the

more recent announcements of the Italian school of contra-stimulus, with the less speculative statements of French and English practitioners, have trimphantly advanced antimony to a proud and impregnable place of renown and power."

Under the head of *the morbid effects of tartar emetic*—the author relates the following case, which shows that the remedy is by no means destitute of danger under all circumstances:

"Miss L. H., a young lady of mobile, excitable, nervous system, 18 years of age, was taken with bilious remittent fever, whilst her mind was in a state of impassioned excitement, from family difficulties connected with a love affair of her own. Four grains of tartar emetic dissolved in eight spoonfuls of water were given in separate quantities, of a table-spoonful each, every ten minutes. Copious vomiting took place—alarming prostration ensued—the pulse sunk rapidly —incessant jactitation with cold clammy skin came on, and in despite of the most diffusible stimulants, she died on the third day after the administration of the medicine."

The author gives the Italian practice with tartar emetic, which he appears not to have found available. Has any American physician? He says—

"Rasori's method, so much eulogized and, we may add, so impracticable in the cases we have had to treat, was, after one or more bleedings, or without this evacuation, according to circumstances, to give twelve grains of tartarized antimony twice during the twenty-four hours. If the disease had made considerable progress, he began with twenty or thirty grains, increasing the dose daily till one drachm, or even several drachms, were taken in the course of twenty-four hours. Of 832 cases of pneumonia thus treated, only 173 died. Laennec, adopting the practice of Rasori, restricted the quantity of the remedy to a comparatively limited extent. After bleeding, he prescribed one grain every two hours, increasing it to two, or two and a half grains, at the same intervals. At first it generally puked and purged, but these effects soon passed off, and the *tolerance* was established often within twenty-four hours from the time of its first administration. It was occasionally necessary to give aperients to keep the bowels open. It was discovered by him that the

remedy was most efficacious when it did not produce any sensible evacuation. Pneumonia had been treated according to Laennec, by Riverius and Stoll with tartar emetic as a vomit; given every day, or every other day. And Dumangin, physician to La Charite, scarcely ever combined bloodletting with it, and yet his success in the treatment of pneumonia was equal to that of Corvisart in that affection, though by him vascular depletion was freely employed."

His conclusions respecting the employment of tartar emetic in pulmonary affections, are thus stated:

"1. That the liberal use of the lancet should precede, in severe forms of pneumonia, the exhibition of the remedy.

"2. That the employment of tartar emetic should not supercede local bloodletting in the disease.

"3. That the remedy is adapted to the first and second stages of pneumonia, in which engorgement and red hepatization obtain.

"4. That from one grain to four grains every two hours is as much as our patients will commonly bear.

"5. That counter-irrritation by blisters may be advantageously used, after the more urgent inflammatory symptoms are subdued, during the time that the tartar emetic is administered.

"6. That in protracted, as well as in typhoid attacks, the constitutional agency of mercury must be associated with the remedy.

"7. That the tolerance of the stomach in bearing large doses of the medicine does not altogether arise from the character of the attack, but is in part dependent upon a repetition of the dose, habituating the gastric mucous tissue to its action: also in part dependent on the vehicle in which it is given.

"8. That the anti-inflammatory power of the remedy is distinct from its nauseant and evacuant modes of operation, and partakes of a species of rapid, energetic alterative influence.

"9. That whenever decided symptoms of gastritis, or enteritis, are present, the remedy must be either altogether laid aside, or employed with much caution.

"10. And that a combination of one or two grains of calomel, ten grains of nitrate of potash, and one grain of tartar emetic, is the best form of its exhibition, in very dan-

gerous attacks of pulmonic phlegmasia. Also, in subdued forms of the disease a union of calomel, tartar emetic, and digitalis, or opium, is the most eligible mode of exhibiting our antimonial."

The chapter on *cathartics* is brief, in comparison with the foregoing, or with that which treats of bloodletting. This topic is disposed of in fifty pages; and, in that space, besides laying down precise rules for the guidance of the young practitioner, Prof. H. contrives to cite a multitude of authorities in reference to purgatives. Nor does he forget to speak of the abuse of this class of medicines. But we have not room to follow him over all these subjects, much less to engage in the discussion of themes so fruitful in controversy.

Under the head of *incitants* the author groups tonics, antispasmodics, and astringents; and we have an account of acetate of lead and alcohol in the same chapter.

The author's remarks on the mode of administering the preparations of cinchona will be read with interest:

"*Modes of exhibiting cinchona, and the disulphate of quinia.* The bark in substance was formerly our almost exclusive reliance in the arrest of intermittent fever. But, however managed, it was an arduous undertaking to get many patients to take enough of it for the attainment of the object. It was mixed with wine, or porter, and thus introduced into the stomach; or it was united with Virginia snake root and ginger, and a hot infusion made of it; or it was thrown up the rectum; or it was quilted into a flannel shirt, and the patient's body surrounded by it thus applied. The best two forms of its exhibition were its combination with snake root and ginger, as already stated, and its union with pulverized Virginia snake root and carbonate of potash. When prepared in the last mentioned mode, it was given in molasses or ginger syrup. Very often, to a warm infusion of bark and snake root, after it was cold, was added dilute sulphuric acid. After all our best devised plans of its administration, it was a hard task, very often, to master an intermittent by the bark in substance, for, in addition to the difficulty of its exhibition, was the very frequent adulteration of the drug.

"Amidst all this perplexity and vexation, the great discovery of the di-sulphate of quinine burst upon us. Feelingly

do we speak on this point, from the fact of our practising in a miasmatic district of country, in which intermittent fever was exceedingly rife, and often very unmanageable. The science of modern chemistry, amid its great and glorious achievements, perhaps never conferred a richer boon on practical medicine, than by the discovery of this preparation. And now, familiarized as we are to its use, it behooves us with renewed attention, to study well its curative powers, that we may, with increased skill, more successfully combat those morbid states which demand its interference.

"The di-sulphate of quinine is endowed with the following properties:

"1. Pre-eminently it possesses an anti-periodic power.

"2. It is decidedly tonic.

"3. It is an excitant to the nervous and vascular systems.

"4. In an inferior degree it is astringent.

"5. It possesses a febrifuge quality.

"6. It is slightly diaphoretic.

"The basis of the great reputation of the bark was laid in the unrivalled mastery which it was found to exercise over intermittent fever.

"After the cinchona had acquired a conspicuous position among the curative means in which mankind reposed confidence, and had been sold for its weight in silver, as a remedy in fever and ague, then so common and so fatal in various parts of Europe, it fell into an almost total neglect, until its popularity was revived by a circumstance which brought forward the article from its concealment and neglect. Allusion is had to the fact that Louis XIV purchased of Sir Robert Talbor, an Englishman, a secret remedy employed by Talbor with great success in intermittent fever. This secret remedy proved to be the bark, which from this period stood forward as one of the great commanding agents employed in the practice of medicine.

"No article, nor combination of articles, of the Materia Medica, can for a moment stand a comparison with bark as an antiperiodic remedy. This attribute of the cinchona is distinctive, pre-eminent, and energetic. It is to a very limited extent participated in by other vegetable tonics, and among our mineral agents, arsenic is the only remedy that produces similar results in periodical attacks.

"This characteristic property of the bark is, without abatement of virtue, transferred to the di-sulphate of quinine. In doses varying from one grain to half a drachm, the di-sulphate

asserts a similar dominion to the cinchona in arresting febrile and other seizures, which recur in regular paroxysms.

"The most successful method of securing the exercise of this antiperiodic property, is to give the di-sulphate of quinine in a large dose two hours anterior to the expected onset of the intermittent. Our usual dose is not less than ten grains, and somtimes we exhibit at one time as high as thirty. Where much debility obtains, we often prescribe two grain doses, every two hours, during the entire apyrexia, and then one hour before the anticipated seizure, order five or ten grains.

"The pilular form is the preferable mode of its exhibition. In this form morphine may be combined with it, in cases where there is irritability of the stomach, or in which diarrhœa exists. In phlogistic states of the system we often combine tartarised antimony, or ipecacuanha with the di-sulphate."

Dr. Harrison speaks well of *iron*. He quotes Dr. Elliotson and others for its virtues in chorea and other diseases, but might have said much more of it as a remedy in chronic intermittents. Of the tincture of the muriate he says:

"The muriated tincture of iron is one of our best chalybeates. Endued with tonic and astringent properties to an extent not equalled by any other ferruginous preparation, it is likewise specially capacitated to act on the genito-urinary apparatus. As a tonic, we have found it very effective in apepsia, or want of peptic energy. Where pyrosis is the predominant symptom, no tonic has better succeeded in our hands. In slight attacks of chorea it acts most propitiously. In anemia, our main reliance has usually been the muriated tincture. If torpor of bowels is present, the tincture of aloes may be advantageously combined with it. As an internal astringent, the remedy has proved productive of good in diarrhœa, but is apt, in full doses, like alum, to induce slight catharsis, though in small quanties it exercises an astringent action on the digestive tube. As an external styptic it has been applied, with benefit, to indolent ulcers.

"Its capability of exerting a special medicinal influence on the uterus can scarcely be questioned by any one who has made a faithful application of it to cases of retained and suppressed menstruation, occurring in weakened habits. Like

the sesqui-oxide it always communicates to the alvine discharges a dark color."

Restoration of the secretions is the heading of the chapter succeeding, and among the articles calculated to fulfil this indication we find enumerated, diaphoretics, baths, diuretics, and antilithics, expectorants, emmenagogues, and anthelmintics. Then follows a chapter on the *anodyne*, or *narcotic indication of cure*, and the volume closes with a consideration of the *revulsive indication of cure.*

We have thus attempted to present an outline of the subjects with which this volume is taken up, and some account of the doctrines of the author on a few points. The reader will not have failed to discover, that in many respects the work has stronger claims to originality than any system of materia medica which our country claims the honor of having produced. In a former article we indicated some particulars in which it struck us that it was susceptible of improvement. We shall add nothing more to what was said on that occasion, but only remark, that we shall be glad to find in future editions of the work, if new editions should be called for, that the author has corrected the errors of doctrine and style to which the press has pretty generally adverted.

Y.

ART. IV.—*Animal Chemistry with reference to the Physiology and Pathology of Man.* By Dr. J. FRANZ SIMON, Fellow of the Society for the advancement of Physiological Chemistry at Berlin, etc., etc. Translated and edited by GEO. E. DAY, M.A. & L.M., Cantab., Licentiate of the Royal College of Physicians. Philadelphia: Lea & Blanchard. 1845. 8vo. pp. 292. Part I.

No treatise on physiological chemistry approaches, in fulness and accuracy of detail, the work which stands at the head of this article. It is the production of a man of true

German assiduity, who has added to his own researches the results of the labors of nearly every other inquirer in this interesting branch of science. The death of such a laborer, which is mentioned in the preface to the work as having occurred prematurely in 1843, is indeed a calamity to science. He had hardly reached the middle term of life, and yet had made himself known all over Europe, and in our country, where his name has been familiar for several years as among the most successful of the cultivators of the chemistry of man. We propose to present, as far as our limits will allow, an analytical view of the most striking of the results at which the author arrives in this treatise. We shall look in vain in it for those broad philosophical views with which Liebig captivates his readers; we find in it little of the boldness or originality of the great chemist of Giessen; but, though it be not a system, it is a vast repository of facts, to which the teacher and student may refer with equal satisfaction.

We are not prepared to subscribe to all the author's physiological conclusions. Thus he says in his preface—

"The urea excreted may be regarded as a measure or equivalent of the animal heat developed."

And again:

"Moreover, the amount of carbonic acid and the formation of urea are lessened by a torpid, and increased by an excited circulation; and in proportion to the amount of corpuscles and to the rapidity of the circulation, so much the higher is the animal temperature. Thus in birds we observe a high temperature, and the reverse in the amphibia. In chlorotic, and also in very aged persons, we find a low temperature, and a diminished excretion of urea, while in inflammatory diseases, and after prolonged corporeal exertion the temperature rises, and there is either a relative or an absolute increase of urea; in the former case, even in the absence of all nitrogenous food. The capillary and cutaneous systems tend to regulate an excessive rapidity of the circulation, and to prevent the animal heat from exceeding a certain limit."

Now, while most of what is here said is unquestionably true, and while there does appear to be, in most cases, a certain ratio between the urea and the animal heat, unfortunately for the proposition it is established, that children, in whom the temperature is high, excrete as little urea as men advanced in age whose temperature is correctly stated to be lower than in the adult and middle aged. Lecanu, as the result of 120 analyses of urine, found that the quantity of urea passed in twenty-four hours is in grammes (a gramme is 15.44 grains troy):

	Minimum.	Mean.	Maximum.
"By men, - - - - -	23.155	28.0525	33.055.
By women, - - - - -	9.926	19.1162	28,309.
By old men (80 to 86 years,)	3.956	8.1105	19.116.
By children of 8 years, -	10.478	13.4710	16.464.
By children of 5 years, -	3.710	4.5050	5.300."

The temperature of women is not lower than that of the rougher sex, and still it seems that the secretion of urea is about fifty per cent. less in them than in men. The declension of this product of secretory action in old age, and its small amount in infancy, are facts of great interest to the physiologist; but the generalization of our author on the subject is not sanctioned by the facts in the case. But it is rather in the multitude of his analysis than in the plausibility of his theories, that his work interests us, and to these we will now ask the attention of the reader.

The translator, Dr. Day, prefixes an account of the mineral and organic constituents of animal bodies, which takes up eighty pages of the volume. We shall not attempt even an enumeration of the various topics embraced in this introduction, but content ourselves with saying, that all the facts which one might wish to find precisely stated may be gathered from it.

The author in the following passage states some of the difficulties of his subject, and the principle that guides the chemist in the analysis of organic matter. Thus—

"The principle upon which these investigations are conducted is dependent on certain questions, which are to be an-

swered by the analysis. Thus in the analysis of the blood, the principal component parts, the water, albumen hæmatin, globulin and fibrin, are usually determined; but if it be requisite that the analysis should be more fully carried out, we must separate the hæmatin from the globulin, isolate the fats, extractive matters, and salts, and determine their individual proportions. This is the plan that I have usually adopted, and in some cases I have added the determination of sugar, urea, and hæmaphæin. The execution of such a comparatively simple scheme as this is a matter requiring considerable time and labor; and if it were required that we should carry out the analysis still further, and separate the various fats, the different combinations of fatty acids, the varieties of extractive matter, and finally the different salts, our task, in the present state of our knowledge, would be one of great difficulty; and in consequence of the minute proportions in which some of these substances exist in the blood, it would be necessary for us to operate upon a much larger quantity of the fluid than we are usually able to obtain. This method of investigation will probably in a short time be deemed insufficient, for as soon as we have an accurate knowledge of the mode of formation of the extractive matter, its separation and determination will be of the highest importance in explaining many of the phenomena of the metamorphoses of the blood.

"The same is the case with respect to the urine. The formation of a perfect quantitative analysis of this complicated fluid is an extremely difficult (if not an impossible) task, in consequence of the facility with which new products are developed during the progress of the investigation. The course usually pursued has been, therefore, the separation of those constituents which are apparently the most important, the urea, uric acid, salts, and extractive matter; in some cases the estimation of sugar and albumen has been added. The instances in which the separation of the extractive matter into its three principal groups, and the individual analysis of the salts, have been undertaken, are still more rare."

He then refers to the best methods of analysing the several substances, which will be found under the proper heads, but which it will be impossible, if it were desirable, for us to enumerate. The blood is then introduced as the most important of the circulating fluids, and the space devoted to it embraces a mass of facts exceeding in richness anything hith-

erto presented in our language to the physiologist. First, we have the microscopic analysis of the blood, by which we arrive at the diameter of the blood-corpuscles in man and different animals. The ruminants seem to possess the smallest, in man and monkeys the globules being $\frac{1}{300}$ [illegible] in the carnivora they are $\frac{1}{400}$ of a line, while in the ruminantia they are but $\frac{1}{500}$ of a line, equal to 5. The largest blood-globules are in the fishes, among which the torpedo seems to stand at the head of the class. Having given the admeasurement of the globules of the blood, the author next advances to the consideration of the general chemical relations of that fluid. We give only a few examples of change effected in it by chemical reagents. The corpuscles are soluble in caustic ammonia, potash, soda, lime, bile, the acids, alcohol, ether, oil of turpentine, and sulphate of carbon.

"The effects produced by coneia appear, from Hünefield's observations, to be very singular.

"Coneine, either in a state of solution or vapour, reduces the blood to a dirty red greasy mass, which, under the microscope, resembles dark melted wax, and in which no corpuscles can be detected. If diluted blood be treated with a little coneine, it remains fluid, but after a short time, becomes discolored, and throws down a brown sediment. The blood of a rabbit, poisoned with coneine, exhibited no peculiarity."

The formation of the blood is discussed at considerable length, but we pass over the obscure subject to topics promising more satisfactory results. Respiration is one of the functions closely related to the process by which aliment becomes blood. Of the amount of carbonic acid given off by the human subject, of different sexes and ages, we have an estimate in the paragraph annexed:

"It is thus seen that, in general, the amount of carbonic acid expired by both sexes increases with age up to a certain point—the 40–45th year, and then diminishes; that the quantity of carbonic acid expired increases with the development of the muscular system; that women expire less carbonic acid than men; that the formation of carbonic acid attains its

maximum at the commencement of menstruation, and then experiences no further increase, except in the pregnant state, until the cessation of menstruation, when an increase again takes place. On an average, an adult male of moderate constitution, exhales from 160 to 170 grains of carbon per hour; an adult female, in the unimpregnated state, from 100 to 110 grains; during pregnancy 125; and after the cessation of the catamenia, from 116 to 130 grains. Dumas also found 154 grains per hour as the average quantity of carbon exhaled by an adult male."

Other circumstances affecting the quantity of carbonic acid expired are the following—

"Hunger and rest diminish, satiety and labor increase it. It is greater during the day than the night, in the proportion of 1·237 to one. If the expired carbonic acid be estimated in relation to the weight of the body, it is found that children give off a proportionally greater amount of this gas than adults. In some forms of disease, the amount of expired carbonic acid falls below the standard; it seems, in a state of health, to vary directly with the activity of the circulation."

The subject of animal heat is closely connected with the circulation of the blood, and the development of carbonic acid. In respect to it the work before us contains its usual rich store of facts, and is sound in its views, the chemists being judges. As to the vital heat of various animals, we are informed, that—

"There is no very great difference between the cetacea and the other mammalia in respect to their temperature. The temperature of the seal and of the Greenland whale has been determined at 104°, and that of the porpoise has been found to vary from 99°·5 to 95°·9. The temperature of the amphibia differs very slightly from the surrounding medium. Czermack found that the temperature of a proteus was 63°·5 when that of the air was 55°·4, was 68°·25 when the temperature of the air was 63°·5, and was 65° in water at 55°; in water of which the temperature was 44°·4, the temperature of a frog was 48°. Dr. Davy found the temperature of a snake 88°·46 in air of 81°·5, and 90° in air of 82°·94; the temperature of testudo midas was 84° while that of the air was 79°·5."

The temperature of fishes, from the experiments of John Hunter and others, is assumed to be 0.7 to 2.7 degrees above that of the surrounding water. These details are followed by the following conclusions:

"It must be regarded as an established fact, that a certain temperature is necessary for the continuance of animal life, and that the source of this temperature must be sought for within the organism, and must be looked upon as a consequence of life itself. The production of heat cannot, however, be so properly ascribed to any of the collective phenomena of life, as to the chemical processes, which are known to develope warmth, and the action of which we see in the metamorphoses; and on the other hand a certain degree of animal heat is indispensably requisite for those chemical processes which are the necessary consequences of the proper organic development of the cells of all tissues, and of their catalytic influence on the nutrient fluid, the plasma of the blood. The animal heat is therefore to be regarded as the product of those vital functions, for the due exercise of which it is essentially requisite. The organism is thus protected against the innumerable disturbing forces under which it would otherwise succumb, in consequence of the varying temperature of the external world. The development of heat, therefore, decreases with the diminution of the vital powers, with the retarded circulation of the blood, with checked nutrition, and with imperfect metamorphosis, while all the phenomena of inanition, perfect destruction of power, and finally an asphyxiated condition, are the consequences.

"As this cellular action, which is collectively exhibited in the metamorphosis of the animal organism, may be regarded as purely chemical, so the heat that is engendered thereby may be considered as a consequence of these chemical processes, and therefore all those functions of the organism which are necessary for the preservation of life, contribute directly or indirectly to the production of animal heat, which must be regarded as developed at every point at which metamorphosis is occurring, and therefore not merely in the lungs but in the whole peripheral system. The absorption of oxygen, and its combination with the carbon of animal matter, not only in the lungs, but in the whole body, must, on that account, be regarded as the principal source of heat. In addition to the oxygen required for the formation of the carbonic acid, a certain amount is absorbed, which probably en-

ters in combination with hydrogen, or with binary or ternary radicals of carbon and hydrogen, of carbon and nitrogen, or of carbon, hydrogen, and nitrogen, and in this manner, doubtless, contributes somewhat to the general production of heat."

The slight independent temperature of the fœtus, and of those young animals that are born in an imperfectly developed condition, the low temperature of persons with morbus cœruleus, and of aged and debilitated persons, the phenomena observed in hybernating animals, all, in the view of this author, support this theory of the source of animal heat. Equally favorable to it he regards the high temperature in inflammatory diseases, when the blood circulates more rapidly than usual, and the metamorphosis is more rapid.

The ordinary constituents of the blood need not be enumerated, but we may mention the substances which are sometimes found, being generally, if not always the result of some morbid action in the system. These are 1. *urea*, which after the extirpation of the kidneys, becomes so abundant that it is easily recognized, as it does also in Bright's disease; 2. *sugar*, a substance perhaps never detected in healthy blood; 3. *bile*, of which the same remark may be made; 4. *fats;* and 5. *extractive matters.*

From the analysis of the author he is led to conclude that

"Arterial blood contains less solid residue generally than venous blood; it contains less fat, less albumen, less hæmatin, less extractive matters and salts than venous blood. The blood-corpuscles of arterial blood contain less coloring matter than those of venous blood."

The blood is affected by constitution; that might be expected. Its constituents must vary with the varying conditions of the system.

"Denis concludes from his analyses that, generally speaking, the stronger the constitution is, the greater will be the amount of solid constituents, and especially of blood-corpuscles. If age is also taken into consideration, my observa-

tions confirm those of Denis. At equal ages, the blood in weak constitutions is less abundant in solid constituents and hæmato-globulin than in stronger constitutions."

Differences dependent on temperament:

"According to Lecanu, temperament has an influence upon the composition of the blood. He infers from his analyses that the blood of lymphatic persons is poorer in solid constituents, and especially in blood corpuscles, than that of persons of sanguineous temperament, while the quantity of albumen is much the same in both."

Differences dependent on age:

"The mass of the blood in the fœtus increases in a very rapid ratio with the development. The proportion of corpuscles is more augmented, and the quantity of water is less than occurs at any subsequent period of life. Even for some time after birth the mass of the blood is relatively large, and the proportion of blood-corpuscles and of iron contained in them is considerably above the ordinary standard.

"Denis has made some experiments on the difference between the blood of very young animals and those of mature age, which confirm the observations already made. His experiments were instituted on dogs.

	Blood of a dog, 3 months old.	Blood of a puppy, 1 day old.
Water,	830.0	780.0
Solid residue,	170.0	220.0
Fibrin,	2.4	2.0
Albumen,	58.6	46.0
Blood-Corpuscles,	97.0	165.0
Extractive matter and salts,	12.0	7.0

"When the skin of the new-born animal loses its red tint, the blood becomes more watery, the blood-corpuscles and the quantity of iron are diminished, and it becomes relatively, but not absolutely, poorer, for its quantity at the same time increases. Subsequently, however, when the generative powers begin to be developed, the corpuscles and the iron increase, and the relative proportion of water diminishes. At the period of full development the excess of corpuscles and iron serves in maintaining the necessary energy of that part of the system, and till the generative powers begin to

flag the blood remains abundant in solid constituents, and more especially in corpuscles."

The most important investigation, perhaps, is that which remains to be noticed, and relates to the blood as modified by disease. The author remarks—

"The question whether there exists such a thing as *diseased blood*, is easily answered. The material deviations from its normal condition exhibited by the blood in its physico-chemical relations, in certain morbid conditions of the system, have long been recognised by pathologists."

In a former number we devoted a good deal of space to this subject, as it was brought before the public in the excellent treatise of Andral on hæmatology, and shall attempt to avoid repeating anything given in that article. The composition of healthy blood, as deduced from the mean of our author's analyses, is as follows:

"Water	795.278
Solid residue	204.022
Fibrin	2.104
Fat	2.346
Albumen	76.600
Globulin	103.022
Hæmatin	6.209
Extractive matters and salts	12.012"

And he has found among the specimens of diseased blood, analysed by him, the following variations:

"Water	may vary from 888.0	to 750.0
Solid residue	" 250.0	112.0
Fibrin	" 9.1	a trace
Fat	" 4.3	0.7
Albumen	" 131.0	55.1
Globulin	" 106.6	30.8
Hæmatin	" 8.7	1.4
Hæmato-globulin	" 115.4	31.2
Extractive matters and salts	16.5	7.6"

The deviations found by Andral and Gavarret may be given for comparison; they were as follows:

"Water - - -	from	915.0	to 725.0
Solid residue - -	"	275.0	85.0
Fibrin - - -	"	10.5	0.9
Solid residue of serum	"	114.0	57.0
Blood-corpuscles -	"	185.0	21.0"

In diseases of an inflammatory character this writer found, in common with other observers, that the quantity of fibrin was increased; he found also that the blood had always an alkaline reaction, and states that, according to some experimenters its temperature sometimes attains to 112°.

Proceeding to individual diseases he says:

"The blood usually exhibits the characters of hyperinosis, more decidedly in pneumonia than in most other inflammatory diseases, it also retains its heat for a longer period. The clot is rather below the ordinary size, very consistent, and does not break down for a considerable time. It admits of being sliced, and the sections retain their consistency for some time. Its surface is covered with the buffy coat, and is more or less cupped. The serum is of a pure yellow color. The quantity of solid constituents is usually less than in healthy blood.

"The maximum of fibrin in my analyses was 9.15, which is the largest quantity that I have ever discovered in inflamed blood. The minimum was 3.4, and the mean of four analyses was 6.0. Andral and Gavarret found the maximum of fibrin to be 10.5; the minimum 4; and the mean to fluctuate between 7 and 8. They never met with more than 10.5 of fibrin in the whole course of their analyses."

The following table he copies from Andral and Gavarret, as showing the effect of repeated bleedings upon the constitution of the blood in acute rheumatism:

Bleeding.	Day of Disease.	Water.	Solid residue.	Fibrin.	Blood-corpuscles.	Solid residue of serum.
1	8	778.8	221.2	6.1	123.1	92.0
2	9	780.9	219.1	7.2	120.7	91.2
3	10	788.0	212.0	7.8	112.8	91.4
4	13	799.0	201.0	10.2	101.0	89.8
5	17	813.9	186.1	9.0	89.2	87.9
6	28	826.2	173.8	7.0	83.3	83.0

Dr. Day quotes a case, published by Rindskoff, in which the fibrin mounted up to 12.726. The subject labored under broncho-pneumonia, and was 60 years of age; the blood was taken shortly before his death. In a case of pneumonia biliosa the blood analysed by Scherer gave:

"Water	779.00
Solid constituents	221.00
Fibrin	9.70
Blood-corpuscles	124.60
Albumen	72.26
Salts	9.57
Extractive matters	4.83"

At a second bleeding it exhibited these proportions:

"Water	785.00
Solid constituents	215.00
Fibrin	9.40
Blood-corpuscles	122.26
Albumen	95.36
Salts	8.31
Extractive matters	9.67"

Three days later the patient was again bled, and the blood was found to contain:

"Water	780.00
Solid constituents	220.00
Fibrin	12.72
Blood-corpuscles	118.47
Albumen	69.83
Salts	7.63
Extractive matters	11.35"

On a fourth venesection it contained:

"Water	796.00
Solid constituents	204.00
Fibrin	8.87
Blood-corpuscles	106.26"

Here we must stop, for the present, but we shall resume the subject again. Y.

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

On a dangerous form of Jaundice.—Dr. Corrigan thus describes a form of jaundice of not unfrequent occurrence, and which, if not judiciously treated in the first instance, is apt to prove fatal by coma and other symptoms depending upon the non-elimination of the bilious secretion:

"This form of jaundice is to be met with, generally, among the poorer classes of society, but it occurs, with too great frequency, among persons of the middle rank of life, who have, for the most part, led sedentary lives. We find it occurring in merchants, whose lives have been made uneasy by having met reverses in trade, or by engaging in unsuccessful speculations. We find it occurring in females, mourning over the loss of a husband or a parent, while we as frequently meet with it in persons whose histories present nothing tangible to account for the disease. It sets in suddenly; sometimes we find the patient jaundiced all over in 30 hours, and this state of discoloration may continue for three days, three weeks, or as many months as weeks. In this form of jaundice, the pulse is regular, the tongue clean, the skin cool, and the appetite, in general, is tolerably fair; and we very often find, throughout the disease, the patient lively and cheerful, and able to perform the duties of life as well as ever. The only evidence of deranged health being, the jaundiced countenance, the white stools, and the urine loaded with bile. During this state of little, or no derangement, from the natural standard of health, if the slightest tendency to head affection, such as delirium or coma, should set in, no effort of your art can save the patient. All is at an end; for the records of medicine do not present a single case of recovery from the

situation which I have just now described. I know that, in works on practice of medicine, you find this disease either not noticed at all, or if it is, merely as one of no importance. The most minute *post-mortem* investigations discover nothing whatever faulty, either in the brain, liver, gall-bladder, stomach, or intestines. With regard to its pathology, we are completely in the dark, but though I cannot give you any information on this head, yet as a set off to this want of pathological knowledge on my side, I think that I can give you what you will prefer to this, namely, an unerring cure for the affection in question, whenever it shall present itself to you in your future practice.

Having seen many cases of this disease unavailingly treated in town by blisters and leeches to the side, by the exhibition of purgatives, alkalies, and mercurials; knowing many such cases which were deemed incurable here, that afterwards were cured by country quacks by means of nauseous medicines; struck with this fact, and reasoning from the effects on the stomach of the quack medicines which had been given for its cure, I determined to try the effect of emetics in it. The event was completely successful, and I can assure you, that in an ample experience of four or five years since I first adopted this line of treatment, I have not had a single failure. In general, I am not wont to speak sanguinely of any remedies but those on which I can place implicit reliance, and the present occasion gives me an opportunity of speaking most favorably of the medicine which I have just been recommending to you. For the cure of this disease, it will be quite unnecessary for you to prescribe mercury, or any other medicine, save an emetic of ℥ss. ipecacuanha every second day until the jaundice disappears. This frequently occurs after the action of the second emetic; even it will not be necessary for you to have recourse to purgatives, as the ipecacuanha in most instances relaxes the bowels; but if you do order purgatives, let them be of such a sort as will not color the fæces—so that you may perceive if the bile is again being propelled into the intestines. Of the medicines not liable to this objection, the best you can select are decoctum aloës compositum, and magnesia usta. By carrying into operation in your future practice, the routine which I have just sketched out for you, I am confident you will be able to add to mine, your unqualified approbation of the benefit derivable from the use of emetics in this form of jaundice.—*Med. Times, Jan.* 25, 1845—*Ranking's Half-yearly Abs.*

On the Treatment of a peculiar form of Diarrhœa.—Dr. Corrigan has called attention to a form of diarrhœa, of frequent occurrence in the upper classes of society. He observes:

"The persons most subject to this complaint are females, of what is termed the leuco-phlegmatic temperament, characterized by weak, flabby, muscular development, and general indolence of constitution. In such persons, the menses may be either profuse, or sparing, in quantity; or they may be regular; but this is of no consequence. Connected with this bowel complaint, you will always find more or less of leucorrhœa, which, on inquiry, you will find to have preceded the diarrhœa: as though it would seem that the mucous membrane of the intestines becomes affected just in the same manner as the epithelium of the vagina; these persons are also affected with "bruit de soufflet" of the heart, which is always audible to themselves, and causes them great anxiety. You will find them also, laboring under catarrh, with copious secretion, accompanied by pain of a neuralgic character, here to-day and gone to-morrow; they get drooping and depressed in spirits; lose all inclination for mixing in their usual society; and then their friends, fearing the occurrence of phthisis, become alarmed at their delicate state of health, and, in great consternation, look for advice. This train of symptoms would appear to be caused by the baneful effects of living much in fashionable life, and by stopping up late of nights in crowded rooms, to enjoy their pleasures. These evils, joined to the already existing one of a constitution habitually delicate, are quite enough to produce the disease in question. For the cure of this I have seen the Pharmacopœia unceasingly ransacked; I have seen the most powerful astringents tried, separately, and in combination with other remedies of the same character; still no good was done by them, while afterward the disease has yielded, and that quickly, under the exhibition of decoctum hæmatoxyli, as recommended by Dr. Abercrombie, in doses of a wine-glassful, three times a day. I had, not long since, a lady under my care, laboring with this distressing affection, in whom it was quickly subdued by this simple remedy.—*Ranking's Half-yearly Abs.*

Forms of Disease in which Opiates are indicated.—Dr. Sobernheim furnishes us with the summary of the diseases in which opium is beneficial, and the form of its exhibition:

1. *Fevers Intermittent*, when offering a nervous character, (strong shivering, great anguish, unusual excitement, followed by exhaustion, giddiness, heaviness of the head, hallucinations, and alienation of the senses, spasmodic and convulsive symptems; pulse small, frequent, and irregular, skin cool, cold extremities, violent vomiting and purging.) In such cases, it is either administered in large doses (from 1 to 3 grains) shortly before the paroxysm, or a little after the shivering has commenced (4 to 6 drops of tinctute every hour, with chamomile tea,) or in the intermission (a quarter of a grain of opium with two grains of quinine every three hours;) if the disease be combined with apoplectic phenomena, venesection is to precede it; if with gastric symptoms, an emetic. Græfe and Luders recommend opium (a quarter of a grain) with quinine (2 grains) against the dangerous shivering, subsequent to deep traumatic lesions, undoubtedly caused by the reflex action of the spinal marrow. Malgaigne also uses opium with the greatest success, after serious operations, to prevent traumatic inflammations. He administers from 6 to 10 grains of opium during the day, and continues it as long as inflammation is to be feared. By this method he asserts to have prevented forever, local inflammation, and even pain. *Typhus fever*, with great excitability, (exhausting discharges, great excitement and sensitiveness, loquacious delirium, continual sleeplessness, pulse small, spasmodically contracted, skin dry, extremities cold,) in small, repeated doses, in the form of *Dover's powder*, with *ammon. carbon. pyro-oleos.*, to encourage the crisis of the skin, but with great caution. In those forms of *typhus abdominalis*, which are combined with inflammation and ulceration of the intestinal mucous membrane, it is to be employed, according to Lesser (most advantageously in the form of clyster,) when the alvine evacuations cause great exhaustion, and appear peculiarly discolored.

2. *Inflammations*, particularly of membranous, glandular, and sensitive organs, assuming a lymphatic character in the second stage, when the inflammatory symptoms are already removed, combined with calomel; against *hepatitis*, with icterus, after venesection; against *gastritis venenata*, in the form of emulsion, to counteract the violent vomiting; against inflammation of the bladder, (*cystitis*,) with calomel, and under the form of clyster, (P. Frank, Richter;) also against *pneumonia*, when, after antiphlogistic treatment, a state of irritation is left behind, characterised by great excitement, transient, lancinating pains, dry, teazing, spasmodic cough, small, accelerated, and spasmodic pulse, cool skin, &c. In such cases,

opium (from a quarter to half a grain,) with small doses of ipecacuanha and camphor (and with calomel, if the inflammation be not yet quite removed,) rendered the most eminent services, according to P. Frank, G. A. Richter, S. G. Vogel, and Hufeland; this particularly refers to *rheumatic* pneumonia and pleuritis. Also against *pneumonia notha* (false inflammation of the lungs,) which is based on a spasmodic affection of the pneumo-gastric nerve, and on a profuse gathering of mucus in the bronchial vessels, (with camphor, ipecacuanha, sulphur auratum, benzoic acid, and senega.) *Feverish exanthemata*, attended by exhaustion, dryness of the skin, if the eruption does not properly come out, or if it seems inclined to recede; particularly in *small pox*, in the stage of eruption and suppuration, (Sydenham, Richter, Reil, P. Frank—*non paucos ex Orci faucibus eripuit.*) with musk, succinate of ammonia, angelica, camphor; against *measles*, with diarrhœa, vomiting, violent cough; with great caution in *scarlatina*, on account of the frequent congestions towards the chest and head.

3. In *rheumatisms*, when without fever, and very painful, arising from suppressed perspiration; combined with ipecacuanha, (Dover's powder,) camphor, and preparations of antimony, it is very advantageous. Lately, opium has also been used successfully (in large doses) against rheumatisms with fever; Cazenave orders pills containing 1 grain of opium, and continues them hourly (!) till the pain ceases, or perspiration ensues. Corrigan and Hope found opium likewise very useful against acute rheumatism. The excellent effect of opium in this disease was proved in one case, where 8 venesections during 12 hours (!) emetics, sal ammonia, nitre, calomel, &c., were all employed in vain, till Benewitz administered the aromatic tincture of opium (rising from *m* xx to ʒss.) with antimonial wine and nitre, and afterwards a quarter of a grain of opium with calomel, ipecacuanha, and sulphur auratum, and experienced the best results. Notwithstanding this success of opium, it is indispensable to bear in mind the following excellent sentence of Wedel: "Sacra vitae anchora est opium bené et circumspecte agentibus, cymba autem Charonis in manu imperiti et seu gladium in manu furiosi."

4. In *gout*, if the paroxysm occasions violent pains; or if it has receded towards the internal organs, opium may help to bring it back towards the skin (combined with ipecacuanha, camphor, antimony.)

5. *Catarrhal* complaints, when chonic and inveterate, with teazing cough and difficult expectoration (with antimony and

mercury,) particularly when tending to pulmonary consumption, combined with bitter-sweet, liver of sulphur, &c.

6. *Morbid fluxes.* (a) In *dysentery*, with rheumatic catarrhal character, in harvest time, with little or no fever, opium must be employed as the chief remedy, with small doses of ipecacuanha and calomel; also in the nervous forms, accompanied with exhaustion, &c. Opium is, however, injurious in inflammatory dysentery, with fever or with gastrico bilious complication. (b) *Cholera*, in the sporadic form (from six to twelve drops of the aromatic tincture every quarter of an hour, with some acetic ether;) also frictions on the gastric region, and clysters of opium; in the *epidemic* form, opium was only advantageously used against the lighter cases; whilst in the *asphyxiated* or *pulseless* modification, opium was even injurious, by the untimely stoppage of the secretions, as was shown in the late epidemic of cholera at Berlin (Autumn, 1837.) (c) *Diabetes* (with animal diet;) Bailie gives it with rhubarb; Berndt with ammoniuretted copper. (d) *Diarrhœa*, not caused by inflammatory action, particularly of a gastrico-rheumatic character, if very frothy, watery, and exhausting; also with great care during the period of dentition. C. Vogel recommends it against the diarrhœa, sleeplessness, emaciation, weakness, and convulsions, which generally precede softening of the stomach: Cruveilhier, against gastritic complaints, characterized by a peculiar state of the stool, resembling froth of eggs. (e) *Emesis* (vomiting,) purely spasmodic and nervous. (f) *Hemorrhages*, particularly of the lungs, and hæmoptysis (spitting of blood,) with ipecacuanha (Jahn says, "I do not hesitate to declare opium the most indispensable remedy in this disease;") and in spasmodic uterine hemorrhages (with tincture of cinnamon, elixir of vitriol, &c.)

7. *Morbid retentions*, by spasmodic contraction of the vessels, and of the eductory canals. (a) The *icterus* of irritable, hypochondriacal individuals, after cold or mental excitement. (b) *Dropsy*, in consequence of receded eruptions, particularly anasarca and thoracic dropsy, combined with foxglove and calomel; also as an excellent corrective with squill and other violent diuretics. (c) In *painter's colic* it is the chief remedy, either by itself or with alum; sometimes with calomel, castor oil, or in a solution of sulphate of soda (Richter;) here it quickly removes the spasmodic obstruction. (d) In *spasmodic and flatulent colic* (with aromatics and naphtha). (e) In *retention of urine*, when spasmodic; also used in external frictions on the region of the bladder, together with warm oil of chamomile, and in clysters.

8. In *spasms and pains*, when caused by derangement of the primary nervous functions, particularly by morbid increase of the sensitive nervous actions, and comparative inaction of the irritable system, opium restores the original equilibrium, and is thus the chief remedy. Cullen particularly advocates it in his so-called "nervous lumbago," after previous local bleeding.

9. *Neuroses*, viz.—(a) *hooping-cough*, but only in the second or nervous stage; (b) *hydrophobia*, in large doses, as a preservative, after venesection has been carried to fainting; (c) in *trismus and tetanus* it is a chief remedy, particularly when they are traumatic or rheumatic, (Stütz gave it with carbonate of potash and potash baths,) in increasing doses, to begin with two grains, and increasing a quarter of a grain every hour; or twenty drops of the tincture, and to rise five drops every hour, (in symptoms of poisoning black coffee is to be given along with it, and then again twenty drops of the tincture to be continued, Rust); in tetanus, proceeding from gangrena senilis, it is particularly praised by Wendt; (d) in *delirium tremens*, in large doses (from one to twenty grains every hour, till critical sleep appears; if complicated with plethora of the head, hard full pulse, and suppression of the usual secretions, venesection is to precede it; if with gastric symptoms, an emetic, particularly tartrate of antimony and potash; also in *madness*, not based on organic changes, but on suppressed perspiration, sexual excitement, &c. (then to be combined with camphor;) in spasmodic phenomena, fright, &c.

10. In *pulmonary phthsis*, with tormenting cough, profuse expectoration, and great sensibility; in the night perspirations opium is to be combined with acetate of lead.

11. In *gangrene*, with characters of debility, particularly in gangr. senilis and hospital gangrene, internally and externally.

12. In *syphilis*, with painful and spasmodic symptoms, (an important corrective with mercurial preparations,) particularly in nightly pains of the bones (in the form of acetate of morphia.)

13. In *poisoning by caustic metallic oxides*, if, after the use of proper antidotes, a state of heightened irritability is left in the nervous system; also against poisoning by remedies of very acrid principles (as veratrum album, helleborus, squill, colchicum, semen sabadil.)

14. *Externally*, (a) in all painful and spasmodic maladies, particularly spasmodic colic, pain through calculi (with warm chamomile oil,) painful erysipelatous affections, cancers, phymosis and paraphymosis, chordee, irritable gonorrhœa, leucorrhœa, and painful ulcers; (b) in some *eye complaints* it is a chief

remedy, particularly in chronic ophthalmia left after the acute inflammation, when great sensibility, lachrymation, photophobia, and spasms of the eyelids remain behind; and particularly in arthritic, syphilitic, blenorrhagic and metastatic ophthalmia; against varices of the conjunctiva, obscurations of the cornea (Lallemand.) ulceration, pannus, pterygium, staphyloma; it is also an excellent remedy in polypus of the nose, (the polypi are to be daily touched with laudanum, and covered with lint imbued in the same tincture,) polypi of the ear and uterus; *chilblain*, frost-bitten limbs.—*Ibid.*

Treatment of Fistula in Ano by Ligature. By Mr. Luke.—The advantages of this method over that by the knife are: 1st. The shorter period which usually elapses before the final cure. 2d. The less pain which is felt during treatment. 3. The absence of the dread which the knife generally inspires, and the consequent inducement which it offers to the patient to submit to effective curative treatment; and, lastly the avoidance of all hemorrhage. The treatment is to be conducted in the following manner: An eyed probe, armed with dentist's silk, is introduced through the fistula into the rectum, from whence the silk is withdrawn through the anus, by means of a spring-catch introduced into the rectum upon the finger of the operator. The parts to be divided are then inclosed between the two extremities of the ligature, to which a small fistula-tourniquet is subsequently attached, by passing them through holes provided for the purpose. The requisite amount of tension is maintained by a screw. Care must be taken that the ligature be not so tight as to cause more than slight uneasiness. After the lapse of a few days, ulceration of the enclosed part commences, and the tourniquet becomes loosened, indicating the necessity of the ligature being made tighter.

Nine cases are appended, in which the proceeding was attended with perfect success.—*Lancet.—Ibid.*

Observations on Relaxed Rectum. By Henry Hunt, M. D.—The author of the paper on this subject observes, that the most prominent symptoms of the affection are obstinate constipitation, with tenesmus, the sensation of a load in the lower bowel, which is not relieved by an evacuation, and the discharge of a bloody mucus. The irritation frequently extends to the genito-urinary organs. On examination the rec-

tum is found to be preternaturally enlarged, and more or less filled with large folds of mucous membrane, which impede both the passage of the fæces and the introduction of the instruments. The consequences of mismanagement or neglect of this condition of the bowel are stated to be prolapsus ani, with irritable sphincter, and a species of intussusception of the upper and undilated part of the bowel into the lower and dilated part. The causes of the affection are habitual inattention to the calls of nature, and consequent over-distension of the gut. The treatment recommended by the author, and also by Mr. Bransby Cooper, consists in the avoidance of all apperient medicines, and the injection of a pint of cold water into the bowel every night previous to going to bed; the removal of the prolapsus, and the application of belladonna ointment to the irritable sphincter. A practical injunction is given by Mr. Cooper, to the effect that in all diseases of the rectum, the bowels should be relieved if possible at night instead of morning; because that in the latter case, the moving about during the day tended to displace the bowel, whilst that accident is prevented by repose in bed, after passing an evacuation.—*Paper read before the Medico-Chirurgical Society.—Ibid.*

Poison by Tartaric Acid.—It has been questioned if this acid be a poison. Pommer and M. Orfila are for the affirmative; Coindet and Christison for the negative. The following fact strengthens the opinion of the two first named: William Wats, being affected with rheumatism, applied the 7th Dec., 1844, to Charles Watkins, druggist, to purchase 2 ℥ of Epsom salts. Before leaving, the thought suddenly occurred to him of changing it for another salt less bitter. This was granted to him, and having returned home and dissolved the new article given to him, he swallowed it. His face, some moments after this, became red. He cried out he was poisoned, and then ceased to speak. Other symptoms were developed, and Mr. Wats died on the 16th. Mr. Brood, charged with the examination of what remained in the glass from which he had drank, recognized Tartaric Acid. The apothecary, Mr. Watkins, confessed his error, and attributed it to the change which some one had made of the bottle of the acid, for that commonly occupied by an insipid salt.—*Pharmaceutical Journal.—Southern Medical Journal.*

Contributions to the Practice of Midwifery. By J. Hall Davis, M.D., Physician to the Royal Maternity Charity. Uterine hæmorrhage in the sixth and seventh months of pregnancy accidental and unavoidable.—Treatment, with some remarks on the indications for the use of the "plug."

May 9th, 1844.—My attendance was required in the case of Mrs. G——, aged thirty-two, residing in my immediate neighborhood, previously in good health, pregnant of her third child, and six months advanced in her gestation. Late on the previous evening she had been taken with flooding, which she supposed had been caused by a fright, having been nearly run over by a horse. Early on the following morning, after the escape of some coagula of blood, the hæmorrhage had ceased. I found her at my visit, at midday, as follows:—Pallid, having prior to the occurrence been of good colour; pulse quick, sharp, but regular; extremities cold, not clammy; sense of throbbing in the head, with giddiness, increased by the upright posture; she had felt faint, but had not decidedly fainted; had had no pain in the back, had experienced slight painful sensations in the lower part of the hypogastrinum, but none of a bearing-down character. I directed her to be kept exceedingly quiet in bed, the room to be kept cool, all drinks to be taken cool; nothing in the way of food, but a little weak broth, farinaceous diet, and no stimulating drinks. Fifteen minims of dilute sulphuric acid in water every four hours. This plan—with the exception that she was allowed, the hæmorrhage not returning, to leave her bed at the end of two days, maintaining still the horizontal posture—was continued for about a week, when she had sufficiently recovered to walk out a little. She was, however, cautioned against incurring fatigue, lifting heavy weights, or making any strong exertion.

June 21.—At two, A. M., the hæmorrhage returned, without any apparent cause, but not copiously, and I was requested by Mr. Browne, her attendant, to see her. My visit was made at a quarter past twelve. On examination, per vaginam, I found the orifice of the uterus closed, the nipple-like projection of the lower segment of the uterus was evident, corresponding to the period of her gestation, which was about six weeks short of the full term. The head of the child could not be felt through the anterior walls of the uterus behind the pubes, consequently the ballottement could not be practised: the reason of this became apparent subsequently. The hæmorrhage was moderate, and had not produced even faintness. She had completely recovered from her first attack in

May. She had had no pain; the pulse of good volume and strength. I suggested to my friend, for the present, a repetition of the same measures and precautions, precisely as before, and the expediency of his watching his patient closely.

On the afternoon of the following day the hæmorrhage became profuse, and the patient extremely faint, her face pallid, the pulse small; when, being sent for, I immediately determined, as the hæmorrhage continued, upon the use of the plug. A broad bandage was at the same time applied firmly around the abdomen. She was desired to remain quiet upon the bed, was allowed a little beef tea from time to time, and was visited at intervals. At half-past eight in the evening, there having been active pains during the previous two hours, the plug was removed. The hæmorrhage had been effectually suppressed. The mouth of the womb was now dilated to the diameter of two fingers' breadth, but admitted not of further extension, to enable the hand to be introduced. At intervals of ten minutes and a quarter of an hour the pains were repeated, the membranes becoming tense during their presence, and projecting slightly through the uterine orifice. An edge of the placenta could be felt in front of the head, on passing the finger up, in the absence of pain. At half-past one, A.M., the pains having very much slackened in force, some ergot of rye was exhibited, which had the desired effect of increasing their strength, but the flooding returned to a considerable amount. Upon being sent for, and finding the orifice of the uterus not perceptibly more dilated than at my former visit, and not dilatable, I now ruptured the membranes, and discharged the liquor amnii, hoping thus to put a stop to the flooding, and not wishing again to put her to the inconvenience inseparable from the use of the plug. The hæmorrhage was thus arrested for an hour, and then returned, and she again became faint and pallid. The orifice of the uterus being now only so far dilated as to admit of the introduction of the tips of three fingers, disposed conically, with considerable difficulty, I was compelled to return to the use of the plug, and applied the bandage to the abdomen a little more firmly, and now prescribed an opiate in a full dose, with the view, if possible, of relaxing the rigidity of the uterine orifice, and of procuring her some refreshing sleep.

Visit, ten, A.M.—She had had three hours sleep, and felt greatly better. The plug last employed, in the absence of sponge, consisted of pellets of old linen; it had permitted of a very slight return of hæmorrhage; nevertheless, her pulse was softer and fuller, the extremities warm, and the faintness had

ceased; the pains had subsided; the urine was drawn off by the catheter, and the plug was made more efficient by the introduction of some pieces of sponge. At one P.M., she had had some trifling grinding pains in the small of the back, but none of a bearing-down character. the plug was therefore allowed to remain; there had been no oozing of blood since the last visit. At nine P.M., the same kind of pains had occurred at intervals, but none of an expulsive kind. Being wearied by want of rest,, and the teasing character of the pains, another full opiate was exhibited, and she was left with the plug in the vagina, as a safeguard against return of hæmorrhage. At one A.M., Mr. Browne was sent for. She had had three hours' refreshing sleep, and had been awakened by the pains, which were now strongly bearing. The plug was removed, and a still-born, blanched, and premature child, was quickly expelled, with the chord twisted around its neck.

The placenta was thrown off by the action of the uterus into the vagina, without hæmorrhage, at the end of forty minutes, and thence removed; the bandage previously round the abdomen was tightened, and the uterus was left firmly contracted.

July 11th.—The patient was sufficiently recovered to walk out without risk, having improved steadily under the judicious care of my friend Mr. Browne.

Remarks.—As soon as the mouth of the uterus was sufficiently dilated to admit the finger within it, the lower edge of the placenta was distinctly felt in front of the membranes of the ovum, and in attempting to pass the finger higher up, between them and the walling of the uterus, I was prevented from doing so by the placental attachment. That portion of the membranes which presented at the mouth of the womb was uncovered by placental tissue, and through it the head was found to be the presenting part. The head of the child had not previously been detected, nor, indeed, could it now, through the uterine walling, by the ordinary vaginal examination; nor, consequently, had it been practicable to practise the "ballottement," as in cases of normal pregnancy, by reason of the intervening attachment of the placenta to the cervix.

This patient sustained a hæmorrhage, in the first instance, in the sixth month of pregnancy, from an obvious and accidental cause—a fright. She recovered from this at the end of a week, so as to be able to walk out, and we hoped there would be no return of it. On the 21st of June, six weeks subsequently, the hæmorrhage recurred, without any obvious cause, which led me to suspect it to be of the unavoidable kind,

the result of "placenta prævia," which proved to be the case.

I had recourse to the "plug," preferably to discharging the liquor amnii in the first instance—a practice which I have pursued with success on many occasions,—that the advantage afforded by the bag of waters entire, in dilating the uterine orifice, might be retained, and to facilitate the operation of turning, should that proceeding become necessary. The material of the "plug" which I employed, and which I consider preferable, by far, to any other, was sponge; introduced in separate pellets, until the vagina was completely filled from its uterine extremity to its outlet, a measure answering the two-fold object of stopping the flooding, and, by its irritation, inducing the action of labor; a broad bandage was at the same time applied to the abdomen, so as to afford an uniform support to the walls of the uterus. The patient was thus placed in a state of perfect security against hæmorrhage, until the pains of parturition should be instituted; indeed, until it might be presumed, from the continuance of the pains, and their character, that the orifice of the uterus had dilated sufficiently for the safe passage of the hand into the uterus, and performance of the operation of turning, or for the ready transit of the child by its presentation.

It will be seen that I subsequently, to put a stop to the flooding, which had returned after the removal of the first plug, discharged the liquor amnii by rupturing the membranes, to save the patient the inconvenience of a repetition of the plugging, and that, in consequence, the hæmorrhage ceased, but returned at the end of an hour, so that the former means was not efficient, as was the latter, in permanently suppressing the hæmorrhage.

Some practitioners have, and, agreeably to my experience, without foundation, dreaded the possibility of internal hæmorrhage occurring under the practice of plugging the vagina during pregnancy, or of its masking an internal hæmorrhage, which might indeed, possibly happen, were the body of the uterus relaxed so as to admit of an expansion of its cavity; but the orifice of the uterus is supposed to be in a state of rigidity when the plug is employed, and we may presume that the entire parietes of the organ must be in a somewhat similar condition, or, at any rate, so far in possession of their natural tonicity as not to admit of unlimited development; but at all events the application of a broad belly-band, with the ordinary precautionary measures, to be adopted in cases of hæmorrhage, would remove all the chances of such an event occurring—it has never once happened under my cognizance.

On the other hand, should the plug not be had recourse to, in a case in which the liquor amnii has been discharged, the hæmorrhage continues in considerable quantity, and as the hand cannot be passed through the uterine orifice to turn the child, without inflicting contusion or laceration, the patient must inevitably die from loss of blood, the victim of an unfonuded dread.—*London Lancet.*

On the Periodicity of Neuroses. By J. Pidduck, Esq., M.D., London.—The periodical recurrence of the paroxysms of nervous diseases is a fact not less interesting in a practical, than it is instructive in a pathological, point of view. It necessarily divides the treatment into two parts—that which is to be employed during the paroxysm, and that which is to be employed in the intervals.

The case of Mary Ann H—— is adduced, as a singular instance of a neuralgic periodicity, and of apparently successful treatment. The case is singular, both from the equal length of the paroxysms and of the intervals, as well as from the regularity of their recurrence.

Her age is fourteen. Catamenia have not appeared. Six years ago she was thrown out of a swing, and her head struck against a brick. Violent headache, referred to the forehead, ensued, which lasted about a fortnight; the right hand then became clenched, and the headache ceased. The hand continued immovably closed for three weeks; it then opened of its own accord, and the headache returned. The hand remained open, and she had the free use of it for three weeks, during which time she suffered from headache. It then closed, with the same relief from headache, which she at first experienced. Besides the freedom from headache, her general health was invariably better when the hand was closed, and the opening of the hand was invariably preceded by feelings of indisposition.

From the time of the accident to August last, a period of six years, the alternations of closing and opening of the hand and of headache have followed each other with perfect regularity, except sometimes during the summer, when the intervals have been somewhat protracted. Once, in summer, the hand remained open two months, with constant fore-headache. Instances of injury sustained by the upper part of the spine, from the *contre-coup*, in which the pain is referred to the forehead, are common.

Two cases of this kind have come under my care, attended with incessant vomiting so long as any food remained in the stomach. The first was of a boy, who fell, head foremost, on the pavement, in leaping over a post. The pain was referred to the forehead, where there was a slight bruise. The tenderness, on pressure, was in the upper cervical vertebræ. The pain in the forehead, the vomiting, and the tenderness, were removed by leeching the upper part of the spine, and by rest in the horizontal position.

The second was of a young man, who was seriously hurt by the falling of a heavy wheel on his back, when he was stooping. The pain in the forehead, continual vomiting, and tenderness in the atlantic region, were removed by the same treatment—repeated leeching, and rest in the recumbent posture.

When Mary Ann H—— came under my care in August last, the hand was closed, and she made no complaint of headache. A forcible attempt made to open the hand gave her great pain, extending up the arm. I was struck with the excessively sour smell of the perspiration in the hand, resembling sour curds, just as putrefaction is commencing—a state of the cutaneous secretion which obtains in this form of nervous affections. She complained of tenderness along the cervical vertebræ. A grain of strychnia, divided into fifteen pills, one to be taken three times a day, was prescribed, and a succession of mustard-poultices along the spine. I directed the hand to be well washed with soap and water, and ordered an antacid diet. Under this plan of treatment her general health underwent a manifest improvement, and when the hand opened at the expiration of the last three weeks of its closure, she ceased to complain of her head, which she had never done on former occasions.

The strychnia, which had been continued fifteen days was omitted when the hand opened, and the decoction of polygala senega, with sulphate of magnesia, was substituted, with the use of the vapor bath. These means were used for a month. Finding there was no return of closure of the hand nor of headach, that the tenderness of the cervical vertebræ was no longer felt, and that her health in every respect was good, the remedies were discontinued, and she has remained perfectly well. This case exhibits the utility of strychnia in small doses as an anti-neuralgic medicine. Six cases, showing its successful operation, were published by me in the *Medical Gazette.*

But the chief object in relating the case of Mary Ann H—was, to show a singular instance of periodical nervous affec-

tion. If it were not for the *medicina perturbatrix*, generally resorted to in diseases of the nervous system, I believe that their periodical character would be much more frequently manifested, from the most violent mania to an ordinary tooth-ache. The term lunacy, anciently applied to the former, and face or brow ague, when the pain was reflected from the exposed nerve of a carious tooth, along some superficial branch of the fifth pair of nerves, to the latter, may be traced to the popular observation of their periodical nature.

The question arises:—How can the extraordinary regularity of the paroxysms, in the case in point, be explained?—three weeks of head affection, with perfect use of the hand, and three weeks of rigid closure of the hand, with perfect freedom from head affection, and that for a term of six years! The only explanation that can be offered is perfectly hypothetical, as every explanation of the morbid phenomena of the nervous system must be, so long as we remain ignorant of the nature, properties, and mode of distribution of the nervous energy. The same law of the animal economy which regulates the circulation of the blood seems to determine the distribution of the nervous energy. The same causes which disturb the equality of the circulation also disarrange the nervous influence. By the fall on the head, the upper part of the spine received the principal shock, or *contre-coup,* evidenced by the tenderness in that part. The circulation and innervation were disturbed, an accumulation of blood and nervous energy, or plethora, in the cervical portion of the spinal cord, ensued, which was periodically relieved by the spasmodic closure of the hand. That the vapor-bath was of service in promoting an equal distribution, both of blood and of nervous energy, after the last paroxysm, I think must be admitted; and that to its use the prevention of the recurrence of the closure of the hand must be ascribed.

The *modus operandi* of the strychnia, like that of the galvanic and electric fluid, probably is by exhausting the nervous energy, and thus promoting the relaxation of the spastic rigidity; for, in cases of tonic and clonic spasm, or *distentio nervorum*, these medicinal agents are more successful than in cases of paralysis, or *resolutio nervorum.* This case also shows the value of the vapor-bath as a remedy in neuralgia, and the importance of an antacid diet; for, in the treatment of these frequently intractable cases, every remedy has been unsuccessful, unless a total abstinence from fruit, wine, beer, vinegar, and vegetable acids of all kinds has been strictly observed.—*Ibid.*

M. Trousseau on the indications of Anæmia.—In the Journal de Médecine we find an interesting article by M. Trousseau, on anæmia, and the different indications of treatment which it presents. With many physicians, says M. Trosseau, anæmia is the same affection, whatever may be the cause which produces it, as in all cases it is constituted by an impoverished state of the blood, by predominance of the serosity, and diminution of the globules, the fibrin remaining in normal proportions. (This latter assertion is not correct, as the proportion of fibrin in anæmia is generally less than in the healthy state. It is only in chlorosis that it usually remains normal. See Simon's "Animal Chemistry," p. 306, et seq.)

The anæmia, or impoverished state of the blood being, thus, the principal symptom, the indication appears, at the first glance, to be very simple—viz: to re-constitute the blood by tonics, and preparations of iron. In reality, however, the disordered state of the blood, as appreciated by analysis, is only an element of the disease. There are other conditions of a more recondite nature, which must be taken into consideration. For instance, the state of the blood appears to be the same in a person who has suffered from hæmorrhage for a few days, as in one who has thus suffered for a great length of time. Yet, in the first case, the blood soon recovers its normal constitution, without the assistance of any therapeutic agent, whereas, in the second, the anæmia appears to have assumed a chronic form, and is often very difficult to cure. If the anæmia were all the disease, its duration would not thus modify its nature. In the latter instance, it is evident that the organs, long deprived of their accustomed stimulus, become deeply modified. Thus, anæmia from loss of blood may become a state of disease comparable to chlorosis. In chlorosis, the anæmia is evidently only a part of the disease, for although it gives way with a deceptive rapidity under the influence of analeptics and iron, it often returns without any cause, or under the influence of the most insignificent circumstance, and is frequently preceded and accompanied by various abnormal nervous symptoms, which are not observed in other anæmic diseases. It may also persist for years, notwithstanding the best directed treatment.

In anæmia from hæmorrhage, and in that of chlorosis, the treatment is the same, but anæmia is often the result of an organic lesion, and then the restorative treatment may be useless, or even do harm instead of good.

In the anæmia of cancerous disease iron is of no use, unless the cancerous diathesis is modified by loss of blood. In some

forms of cancer—in uterine cancer, for instance—the anæmia of hæmorrhage may be superadded to that of the organic affection, in which case the administration of iron will often produce a wonderful change for the better.

In the purely cancerous anæmia, iron, if it does no good, does no harm. But this is not the case, says M. Trousseau, in the anæmia of albuminuria and of tubercles. Ferruginous preparations are often given in the first period of albuminaria, under the impression that the patient is laboring under chlorosis. But instead of bringing the blood back to its natural composition, they increase the predisposition to phlegmasiæ, so common in that disease, and render the fever, which sometimes accompanies albuminuria, more violent. M. Rayer, it is true, advises the use of ferruginous formulæ, but he must have been led to employ them more from a consideration of the composition of the blood than from clinical experience. With reference to tubercles, they produce anæmia, but a different kind of anæmia to that of chlorosis. There appears, indeed, to be a kind of antagonism between phthisis and chlorosis, so much so, that tubercles seldom make their appearance in chlorotic patients. Therapeutics still further demonstrate this difference. Iron modifies favorably chlorotic anæmia whilst it exercises a very unfavorable influence on tubercular anæmia. Thus, if iron is administered, as it often is, to young anæmic persons, born of scrofulous parents, and approaching the age of puberty, it will often determine the explosion of the tubercular cachexia, owing to its restoring to the blood its exciting properties, and thus developing the pulmonary phlegmasiæ which so often precede the manifestation and softening of tubercles. The chlorotic poverty of the blood of those who are predisposed to tubercles, is a guarantee of immunity from phthisis in this sense, that it renders these pulmonary phlegmasiæ less frequent. The antagonism which exists between phthisis and intermittent fever, and which has been pointed out of late years, is worthy of notice, in connection with that of chlorosis and tubercles. This antagonism is only observed when the miasmatic infection is carried to such an extent as to give rise to cachexia, or, in other words, to miasmatic anæmia. In this latter form of anæmia, iron is of no use, whereas quinine, or bark itself, properly administered, restores the blood to its normal color, and re-establishes the general health.

The same remarks apply to syphilitical anæmia, in which iron is powerless, whereas mercury generally succeeds in restoring the blood to a normal state, and in renovating the economy.—*Ibid.*

On the Causes and Prevention of Apoplexy and Paralysis—By Marshall Hall, M.D., F.R.S.—There is no more delicate or more momentous question in the practice of medicine, than that of the prevention of the attacks of apoplexy, hemiplegia, or other paralytic affections. These arise from such different and even opposite causes, that the very course of medicine and regimen which is most conducive to safety in one case, has the opposite tendency in another; wherefore, the diagnosis on which our treatment depends requires the utmost care and attention.

There is sometimes a state of plethora, sometimes of anæmia, and in other cases, there is neither the one nor the other, but that morbid condition of the system, called cachexia, often denoted by boils, carbuncles, &c., with deranged secretions—as the predisposing cause of attacks of paralysis.

Allied to this last condition, is that which obtains in dyspepsia and gout. The imperfect performance of the function of the liver, and especially of the kidneys, is in another class of cases, the cause of these formidable diseases. In other cases there is disease of the heart, or of the minute arteries and veins, or of the capillary vessels of the brain and its membranes.

The attention of physicians has, until recently, been too much directed to fulness as the general cause of the apoplectic or paralytic attack; and as to the public, they have to this moment only one idea—that a fit denotes fulness; and the practitioner, who, on being summoned to such a case, shall brave this opinion, and, depending on his professional knowledge, discard that invariable refuge of the timid and ignorant, the lancet, will make himself responsible for the issue.

The author, after stating that the real principle upon which an apoplectic seizure is to be prevented, is to induce a state of equilibrium in regard to plethora or inanition, and of health in regard to the general tone, habit, and secretions, proceeds to remark upon each of the conditions to which he before adverted; and first, of

1. *Plethora.*—When plethora is the cause of the threatening of apoplexy the remedy and safety of the patient consists in depletion. How are we to be certain of the fact (of plethora)? There may be the appearance of the sanguineous temperament, an athletic form, &c.; and with all this, there may be headache, vertigo, and other symptoms of head affection. But is it certain that the symptoms in such a case depend upon fulness? If there be, in addition to the symptoms enu-

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merated, a disposition to *doze*, it is nearly so. But in the absence of such symptom, and even with such symptom, may not the real case be indigestion? Certainly; then what is to be done?

There is a [diagnostic] symptom of great value, when it can be clearly ascertained to exist. It is the occurrence of vertigo, first, in the act of stooping, and secondly, in an unusually erect posture, especially when suddenly assumed. But if this be absent, what is then to be done?

There is a resource in such a case, which, in spite of the criticism of a respectable author, I will again venture to assert is of immense value. There is no case in which a patient, if bled from a good orifice, in the erect posture, bears to lose so much blood before syncope takes place, as in that of real congestion of the cerebral vessels; there is no case in which full abstraction of blood is so necessary. On the other hand, in the case of vertigo, and other cerebral symptoms arising from dyspepsia, the patient neither bears the loss of much blood, nor requires it.

In a doubtful case, I propose to adopt this mode of bloodletting, first, as a guard against the undue loss of blood, and secondly, as a means of *diagnosis*, and a prompter of ulterior proceedings. I have adopted this measure so often, and with such satisfactory results, that I cannot recommend it too strongly to my medical brethren. In cases, on the other hand, in which it has not been adopted, I have seen one class of patients become a prey to apoplectic or paralytic seizures, for want of bloodletting, and another affected with headache and vertigo, drained of blood (uselessly) by repeated cupping and leeches.

2. *Anæmia.*—I now come to speak of cases in which anæmia has already been induced. This is not a state of immunity even against an attack of paralysis or apoplexy. I constantly see patients who are in jeopardy, not from fulness, but from inanition, and who have been kept in a state of anæmia by bloodletting, general or local, when an opposite treatment is required to restore the equilibrium of the system.

A state of pallor; a disposition to vertigo, faintishness, palpitation; a state of nervous timidity; the recurrence of the symptoms when the stomach is empty, when the bowels are freely moved, or upon looking upwards, or upon resuming the upright position after stooping or rising from the bed—such are the diagnostic signs of a state of inanition from that of plethora.

The history of the case is in every respect a great aid in the diagnosis. If depletion has been used, it has been attend-

ed with this result—temporary alleviation, with subsequent aggravation of all the symptoms; an opposite mode of treatment, very cautiously adopted, and prudently pursued, involving quinine and iron, confers a more permanent, but less immediate benefit.

The state of anæmia itself is not without danger even of apoplexy or paralysis; the actual effusion of blood having occurred in some instances. Such a case is related by Denman; it occurred in the midst of exhaustion from hemorrhage from uterine polypus. We might, therefore, incautiously bleed our patient into hemiplegia.

3. *Dyspepsia—Cachexia.*—I have so often observed symptoms threatening apoplexy in conjunction with symptoms of dyspepsia and cachexia, that I have no doubt of the importance of a strict attention to the subject. One form is the following: vertigo occurs with faintishness, nausea, and cold clammy perspiration; sometimes there is actual sickness and much flatus. In these cases the liver is torpid, and the urine is apt to deposit lithic acid salts. In no case is the loss of blood repaired with such difficulty. The application of a few leeches sometimes leaves a state of debility and pallor for weeks. The treatment consists in the correction of the secretion, and in giving tone to the system. The compound decoction of aloes, infusion of rhubarb, of gentian, and sarsaparilla, vinum ferri, and the bicarbonate of potash, are the principal remedies; but with these, a mild nutritious diet, a system of gentle exercises, early hours, and a strict attention to the condition of the feet and general surface, should be conjoined.

4. *Gout.*—There is frequently a connexion to be traced between gout and its frequent attendant the lithic acid diathesis, and the apoplectic and hemiplegic seizure. The steady perseverance in such remedies as the decoct. aloes compos., bicarbonate of potash, &c., have in many cases averted the evil. The vinum colchici should also be given, in very minute doses, as five drops three times a day, to overcome the specific gouty diathesis.

The lithic acid diathesis is not the only urinary disorder which leads to apoplexy and hemiplegia; the attack, as it is well known, occurs in diabetes, and in the case of albuminous urine.

Such are the predisposing causes of apoplexy and paralysis; the prevention must consist in removing them; and, according to circumstances, depletion, iron, sarsaparilla, colchicum, &c., must be prescribed, and steadily persevered in.—*Rank. Abs.*

Diseases of Women unconnected with Pregnancy and the Puerperal state.—1. *Amenorrhœa.*—The disorders connected with the function of menstruation never fail to command a considerable share of attention. The different aspects which deficiency of this excretion may assume, are well described by Mr. Bell, in a paper published in a recent number of the Edinburgh Medical and Surgical Journal. In reference to the modus operandi of emmenagogue medicines, this author observes that much less assistance has been derived from the more correct physiological notions respecting the function of menstruation which have been established during the last few years, than might reasonably have been expected; in fact, that the theory of the periodic maturation and expulsion of ova so far from rendering the action of medicines more intelligible, has tended rather to the greater obscurity of the subject. We cannot, however, admit that the explanation of the action of these medicines as derived from their operation upon the blood, is at all less applicable under our improved physiological knowledge, than it had previously been; for it is just as easy to conceive that a due constitution of that fluid is necessary to the perfect maturation of an ovum, as to the healthy formation of the bile. We do not mean to assert that there is any close resemblance between the production of ova and the secretion of bile, but merely that as both constitute the essential function of the ovarium and the liver respectively, a healthy state of the blood is as necessary in the one case as in the other, and the action of medicines, therefore, equally intelligible.

The comparative power of the different preparations of iron in restoring the blood in chlorotic patients to its normal state, is noticed by MM. Raciborski and Selade; by the latter in an elaborate paper on the therapeutic value of the ferruginous preparations in general. M. Raciborski agrees with MM. Quevenne and Miquelard in giving the preference to metallic iron in an extremely minute state of division, the mode of obtaining which will be found in another part of this work. The memoir of M. Selade is very complete of its kind, and enters minutely into the value of each individual preparation of iron. The best of these, according to this author, are the proto-muriate or hydrochlorate, the carbonate and the lactate; into which latter it is believed by Gelis and Contè, that the other preparations are converted by the action of the gastric juice. This opinion, however, is denied by M. Selade, who leans to the assumption that the metal enters into combination with the free muriatic acid of the stomach. The question is one

of too purely a chemical nature for this report, and we therefore shall pass on to something of a more practical nature. We may, however, before dismissing the subject, briefly allude to the author's theory of the mode in which the iron combines with the blood. When, according to his theory, a preparation of iron becomes absorbed, it is quickly decomposed, and its ferruginous portion combines with the globules which have lost their hæmatosin, and which in this condition are found in company with great numbers of colorless globules. If it has already been oxydized, it soon becomes converted into the carbonate of the protoxide by uniting with the carbonic acid of the venous blood. When these globules arrive at the lungs, they absorb oxygen from the atmosphere, and the iron passes at once to the state of peroxide, the carbonic acid being given off.

Although chlorosis and amenorrhœa are not necessarily connected, we cannot do better than here allude to the description by M. Ricord, of a form of chlorosis depending upon syphilitic contamination. It has been ascertained that the action of the syphilitic poison is principally exercised upon the globules, in the number of which it causes a considerable diminution, for which reason ferruginous preparations are in general in these cases of great efficacy. They are not, however, as has been observed by M. Ricord sufficient by themselves, as in simple chlorosis, but require at the same time a special anti-syphilitic medication. M. Ricord, therefore, employs mercurials as well as iron, but we may remark that no combination is more likely to be of use in these cases than a combination of the latter metal with iodine.

2. *Menorrhagia.*—In the treatment of profuse menstruation, the oxide of silver is very highly spoken of by Sir James Eyre in a useful little work lately published. According to the author's experience, it is superior to the secale cornutum, gallic acid, and indeed all other remedies. The dose is half a grain three times a day, gradually increased to one or two grains. A new, and according to M. Givestet, very active medicine in the same disease is the expressed juice of the *urtica urens.* Our own experience in the treatment of menorrhagia is greatly in favor of the ergot of rye, which we give in the dose of 10 grains of the powder with 6 grains of the pulv. ipecac. c. We have seldom met with a case unconnected with organic disease of the uterus which has not yielded speedily to this combination; and we may state, moreover, that having been in the habit of giving it for five or six years,

we have never met with any symptom whatever to lead us to apprehend the least inconvenience from its employment.

We may likewise observe that the active principle of the secale called ergotin has been productive of the greatest benefit in the uterine hemorrhages depending upon malignant disease. Dr. Ebers, who has had extensive experience of the medicine, recommends the following formula when the ergotin cannot be procured. Bruised ergot 100 grammes, boiling water 500 grammes, macerate for three hours and strain; then add 5 grammes of fresh lemon juice.

3. *Vicarious menstruation.*—Three cases of this rare, though sufficiently familiar occurrence, have been lately recorded. The first is that of a female who having received a lacerated wound near the elbow, had from it a supplementary periodic discharge for several months in succession. Upon her becoming pregnant the wound partially cicatrized, but the scab fell off subsequently to her delivery, again giving issue to a periodic discharge of blood, which continued until the menstrual function became thoroughly re-established. The second instance is reported in the New York Journal of Medicine. The third was brought before the Société d'Emulation of Paris by M. Forget. The supplementary discharge in this case was from the conjunctiva, auditory passages, and from certain portions of the integuments.

4. *Diseases of the Ovaria—Acute Ovaritis.*—The occurrence of acute inflammation of the ovaries, independently of the puerperal state, is generally thought to be unfrequent, so much so that it appears to be treated of in systematic works on the Diseases of Females, rather because its omission would leave a hiatus in the nosological code than from any distinct conception in the minds of the authors of its existence as a separate disease. There is little doubt, however, that these organs are liable to attacks of inflammation in the virgin state; and it is probable that, if the diagnosis could be rendered less complicated, it would be found to be a commoner cause of many of the symptoms attendant upon dysmenorrhœa, and other sexual affections in females than is generally suspected. The subject has lately been illustrated in an elaborate memoir by M. Chereau, which has since been published in a separate form. The author acknowledges three conditions under which acute ovaritis may develop itself; first, and by far the most frequent, the puerperal state; secondly, immediately before and after the menstrual period; and thirdly, from extension of disease from neighboring parts, as the rectum, uterus,

&c. The disease may terminate in resolution, induration, softening, suppuration, and gangrene, the former being, under appropriate treatment, the most usual event. The inflamed ovary may occasionally be perceived by palpitation of the abdominal walls, but more frequently, unless greatly enlarged, it cannot be so recognised. A surer diagnosis may be formed either by vaginal examination, or by an examination per rectum, which latter is the most certain, as we are able by that means to make direct pressure upon the diseased organ. M. Chereau in the enumeration of the symptoms omits one which we have always found to be present in well-marked cases of the disease, viz: pain upon the passage of the hardened fæces. We have several times found patients laboring under dysmenorrhœa and sudden suppression of the menses, in which cases we believe that the ovaries are often inflamed, who have complained of a great aggravation of their sufferings whenever the bowels have been allowed to become costive. The treatment recommended bythe author does not need particular mention.

5. *Ovarian Tumor.*—The subject of ovarian diseases of a chronic character have lately been invested with a peculiar interest. from the attempt that has been made to revive the operation of gastrotomy for their removal. We do not regret that we have no case to record of this operation which has occurred during the period embraced by our report. The merits of the operation itself have, however, met with a considerable attention at the hands of several persons well qualified to give an opinion, among whom we may mention Mr. Liston, Dr. Ashwell, &c., and the result has been its unequivocal condemnation by the majority, as unjustifiable in any point of view in which it can be considered. The remarks of Mr. Liston may be fonnd in the Lancet, Feb. 8, 1845. Dr. Ashwell, after taking a general review of the progress of ovarian tumors, thus expresses himself: "It does not appear that statistics more favorable even than we have a right to expect, will materially change the aspect of the circumstances under which the operation is to be performed. * * * * What would be thought of the feasibility of any other operation involving life in imminent hazard, if it were discovered that out of *sixty-seven* cases, it was fro.n *absolute error in diagnosis incapable of completion in eighteen;* that of the remaining forty-nine, where the extirpation was effected, *sixteen died*, and *two were not cured;* so that out of the whole number *the operation failed in thirty-six, and succeeded in thirty-one*, less than one half."

The editor of the London and Edinburgh Monthly Journal does not give a more promising view of the operation than the writer above quoted; indeed, as given by the former, the statistics of the operation place it possibly still lower in the scale of feasibility. In 89 cases collected in a tabular form in the above named Journal, it appears that 55 recovered and 34 perished from the immediate consequences of the operation. But it appears also that in 9 cases either no tumor was found when the abdomen was laid open, or that it was unconnected with the ovary—cases which place the certainty of diagnosis in a very unfavorable light—and moreover in 14 others the operation could not be completed. Of these 23 patients, 13 recovered and 10 died; so that the number of instances in which the intentions of the operator were fully carried out is reduced to 65, of which number 25 died. This, it certainly appears to us, is a mortality which, although it should not deter from operating in a disease by which life must otherwise inevitably be speedily sacrificed, should make us pause before we interfere in a malady which may be endured in many cases throughout a long life without other inconvenience than that arising from the bulk of the tumor.

The last writer we shall mention by whom the operation of ovariotomy has been considered, is M. Cazeau, in a memoir on the subject presented to the Société d'Emulation of Paris, at the meeting of the 4th Dec., 1844. The opinions expressed by this author correspond in every respect with those above mentioned*

Turning from the disheartening evidence with respect to operative measures for the cure of ovarian tumors, we refer with pleasure to a case reported by Mr. Brown, in which a perfect cure followed the use of compression combined with the exhibition of mercurials and diuretics. This case, as Mr. Brown very justly observes, should encourage us to greater energy in the medical treatment of these diseases.

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*It is but right to state, that since the above was written, the operation of ovariotomy has been strenuously supported by Mr. Atlee (Amer. Jour. of the Med. Sciences, April, 1845,) in some remarks appended to an account of a successful case of abdominal section for the extirpation of a fibrous tumor of the uterus. The statistics of the operations, as stated by him, are the most extensive of any as yet on record, amounting to 101 cases, in which 38 did, or 1 in 2⅔. The causes of death in the fatal cases are from hemorrhage in 8, peritonitis in 8, exhaustion in 2, inflammation of large intestines in 1, gangrene 2, peritonitis and gangrene 1, causes not stated 16, total 38.

A case related by Mr. Hardy in the same journal, in which a large ovarian tumor, having twice impeded delivery, ultimately caused death by inducing strangulation of the intestine, and another by Dr. Lambrecht, in which the contents of an ovarian cyst were on two separate occasions discharged through the umbilicus.

Violent Chorea St. Viti cured by Strychnine.—Eliza Holstappen, aged 19, born in Germany, single. Entered the New York Hospital July 24, 1845. Is of large frame and robust appearance. Has had amenorrhœa four months, but otherwise has enjoyed good health, until about three weeks since her friends noticed a twitching of muscles. This increased until there was involuntary motion of all her limbs. Upon admission, she was unable to remain in bed, so that she was obliged to be kept upon the floor. Her bowels being opened, she was put upon Fowler's Solution, gtt. iv. ter in die. This was increased to every two hours by the fourth day, but her motions became more frequent and strong, so that she could not be restrained on the matress, and tore her clothes from her body. Her nights were sleepless, and she constantly screamed, although perfectly sensible.

On the 2d of August, she was put upon Carb. Ferri, which was continued for three days, the patient being at the same time freely purged with Croton and Castor Oil. This did not produce much benefit. As soon as evening came on, her motions became more and more convulsive, and her screams loud and incessant. For several nights in succession, she was obliged to be tied hand and foot to the bedstead, perfectly naked, as no covering could be kept on her. During the day she was more pacific.

On the 12th, we began the use of Pil. Strychnine, gr. 1-16, ter in die. The effect of this was almost immediate and very marked. It was continued four days, in the above quantity with evident improvement, her nights being more quiet, and some sleep obtained.

On the 16th, the pill was increased to 1 1-2 gr. This night she slept for an hour or more together, in a chair.

17th. Last night she slept in bed quietly for several hours, and this morning *was able to sew.* She walks about, although her motions are still violent. Has been on the use of the medicine just one week.

19th. The last two nights the patient has slept perfectly well during the whole night, without any noise; walks now tolerably straight; and visits the other wards. Her appetite is very great. During the whole of the attack, her mind has been entirely free from any delusion. She still continues the Strychnine ½ gr. ter in die, with progressive improvement. During the last two days she has occasionally complained of headache.

Sept. 1st. Our patient rapidly improved under this treatment, continued until within a few days, when she being apparently *well*, it was stopped, and no symptom of a relapse appearing, she was to-day *discharged cured.*

The pathology of Chorea, is among the mysteries of the science. The arsenical and ferruginous preparations, and drastic purgatives, which have either one or the other, generally succeeded in relieving the symptoms, having in this case entirely failed, the determination to try the Strychnine was made on the supposition of the condition of the nerves in this disease being analogous to that in Paralysis. In the latter case, there is a total loss of power over the muscles, in the other a partial loss only. If the rapid and felicitous result of the use of Strychnine in this case should lead to its further administration in Chorea, some light may perhaps be thrown on the pathology of the disease.—*Med. and Surg. Reporter.*

Tying the Sub-clavian Artery within the Scaleni muscles of the left side for Aneurism.—Dr. Rodgers had a good subject, and performed the operation in the most skilful manner, assisted by Dr. Cheesman and others. The patient had every requisite attention paid him by the house surgeon, besides the daily attendance of Dr. R. Most of the Surgeons of the Institution were in favor of the operation, although some entertained doubts as to the result. The following is a brief history of the case:

Michael Larman, æt. 42, (born in Germany.) laborer—entered the New York Hospital, Sept. 13th, 1845. Admitted with aneurism of the left sub-clavian artery. About four months previously, he felt great pain about the left shoulder and arm, and slight swelling. Four or five weeks previous to the operation, he was attacked with pain and soreness, when carrying a basket of peaches on his shoulder, and, for the first time, he discovered a small tumor just above the collar bone; and when admitted, it was about the size of a goose's

egg, presenting a strong pulsatory character, its outer margin reaching by the sterno-cleido-mastoid muscle, and extending to the outer third of the clavicle. On every side, pulsation could be distinctly felt. The cutaneous veins over the tumor were much enlarged, and the arm, forearm, and hand, were considerably swollen. He complained of severe pain in the axilla, extending to the ends of the fingers, and was unable to sleep on account of the pressure and pulsation of the tumor on the nerves. The patient was bled ℥ x., and put upon ℞. Tr. Digit. gtt. xxx., ter in die. The treatment was continued with occasional anodynes and purgatives, and V. S. twice more at intervals, up to the day of the operation.

The operation was performed in the following manner; an L incision was made from the middle of the thyroid cartilage, a little to the left of the median line down to the sternum, and along the clavicle to its outer third; the veins ramifying over the integuments, bled copiously and required the ligature. The flap was dissected up, and the sterno-cleido-mastoid muscle was separated from its attachment; there were one or two small arteries in the substance of the muscle, that required the ligature.

The deep fascia of the neck was divided by means of the director and bistoury, and the rest of the structure was separated by means of the handle of the scalpel and fingers. The artery was tied just on the inside of the scalena anticus. The pulsation ceased in the tumor, directly after tightening the ligature.

The patient seemed to be doing remarkably well until the 26th of the month, and twelfth day of the operation, when secondary hemorrhage commenced; every means was used to arrest it, but without avail; he died at five o'clock, P. M., Oct. 28th, and the fourteenth day of the operation.

The hemorrhage was from the sub-clavian, and followed the track of the ligature. We have not been able to obtain the particulars of the autopsy yet, but we understand Dr. Rodgers feels more assured of the propriety of the operation since examining the parts after death.—*N. Y. Med. and Surg. Reporter.*

On a Simple Means of arresting Bleeding from Leech Bites. The troublesome and occasionally fatal effects of hemorrhage from leech bites, especially in children, has led to a great number of devices for the purpose of arresting the

bleeding. Mr. Gosset recommends the following plan, which from its extreme simplicity, is worthy of universal publicity. "After wiping away the blood he applies quickly a piece of visiting card, cut into a circular form about the size of a silver penny, the glazed side being applied to the wound. This must be pressed firmly into the wound, and held there about a minute; it will then become glued to the part and effectually restrain further hemorrhage." In this way Mr. Gosset has continually arrested hemorrhages which had resisted caustic, acetic acid, &c.—*Lancet.—Ranking's Abstract.*

On the Treatment to be pursued in the Admission of Air into the Veins.—The plan here mentioned is one given in a monograph by Dr. Wattman, upon the subject of the admission of air into the veins, and is said by the author to be a certain means of preventing the fatal consequences.

The plan consists in the instant closure of the orifice in the vein by the finger, and dashing cold water into the face, if the patient has already experienced symptoms of delirium. The permanent closure of the vein is to be effected, either by gently closing and uniting the lips of the wound, or by ligature or torsion.—*Am. Jour. Med. Sci.—Ibid.*

On the Effects of Ergot of Rye on the Parturient Female and her Offspring. By Samuel Hardy, M.D. Paper read before the Dublin Obstetrical Society.

Long as has been the practice of administering the secale cornutum as an obstetrical medicine, its effects, both salutary and the reverse, are far from being distinctly ascertained. The object of the communication, which we shall here condense, is that of rendering our knowledge upon the subject more precise. In carrying out this object, the author investigates the action of the medicine under the following different points of view:

1. *As to the time the action of the Ergot on the uterus commences.*—From certain tables, this time appears to be in some cases as early as seven minutes after its exhibition, while in others a much longer period is required; the average time appears to be about ten or fifteen minutes. The author considers that it has always commenced within twenty-five minutes at the furthest, when the child has been expelled

alive. On the other hand, if a longer time than this has elapsed, instruments have been necessary, and the infant has been born dead. The beneficial action of the ergot is evidenced by the pains running one into another without any appreciable interval.

2. *Effect on the maternal pulse.*—This part of the inquiry is one of considerable interest, and has not received the attention from practitioners that it deserves. In 19 cases recorded by the author, there was a marked diminution in the frequency of the mother's pulse, after the administration of the ergot; and this effect generally commenced within fifteen minutes of its exhibition. In all cases in which the maternal pulse was affected, the fœtal heart underwent a corresponding change. Here a practical question naturally arises: is ergot a safe remedy in relaxation of the uterus, when the woman is reduced by previous hemorrhage?

The author does not give us any decided reply to this question, but contents himself with allusion to a single case in point, in which alarming prostration followed its exhibition.

3. *The effects of Ergot on the Fœtal Heart.*—This is said to be still more remarkable than the effect upon the maternal pulse, and therefore demands serious consideration. By reference to the tables, it will be found that in the majority of cases a diminution in the pulsation of the fœtal heart, followed the exhibition of ergot. The period at which this commences does not differ from that previously noticed, namely, fifteen minutes; the most usual effect noticed by the author is a diminution, in the first place, of the frequency of the pulsation, which is succeeded shortly by irregularity in the beats, or complete intermission. The author here states a practical fact, deduced from his own observations, to the effect that the child is generally lost, however speedily the delivery be completed, if the pulsation of the fœtal heart are reduced to 110, and at the same time become *intermittent.* The intermissions are a point of great importance in this statement, for the reduction of the pulse below 110 without this concomitant is not necessarily a fatal symptom.

Many different opinions have been broached as to the modus operandi of the ergot in destroying the life of the fœtus, some attributing it to the powerful compression exercised by the uterine walls, others to a specific poisonous effect of the medicine. The author thinks that each opinion may, to a certain extent, be correct, but leans evidently to that which attributes it to the poisonous qualities of the ergot.

The depressing effects of ergot upon the fœtal heart are so great, that a considerable time elapses after birth before the child can be restored. The author has observed that children equally weak are restored to animation with much less difficulty when ergot has not been given.

The author, in alluding to the proper time at which the ergot should be given for the purpose of restraining or preventing 'post partum' flooding, states, that there are three periods at which the medicine may be administered;—first, when the head is about to pass; secondly, after it has been expelled; and thirdly as soon as the index-finger can reach the insertion of the funis into the placenta.

4. *The state of the uterus and lochial discharge.*—After the use of ergot, the uterus has frequently been found much larger than in ordinary labors, as has been remarked also by Dr. Johnson. The lochial discharge was sometimes pale and scanty. The children which are born alive usually do well.

The mode of administration of the ergot varies with different practitioners. The plan adopted by the author is to infuse half a drachm of the powder in three ounces of boiling water, and after straing to add ten or fifteen grains of fresh powder with a little sugar. This dose is repeated in twenty minutes, and if the uterus does not contract well is given a third time.—*Ibid.*

THE WESTERN JOURNAL.

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New Series.—Vol. IV.—No. VI.

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LOUISVILLE, DECEMBER 1, 1845.

TO THE PHYSICIANS AND METEOROLOGICAL OBSERVERS OF THE VALLEY OF THE MISSISSIPPI AND THE LAKES.

The undersigned, having at last become engaged in the composition of a systematic treatise on the physical condition and diseases of the region between the Gulf of Mexico and the Northern Lakes, for which he has been collecting materials by travel, respectfully requests the physicians and scientific gentlemen, who, in his personal interviews with them, promised to assist him with facts, to forward them, by mail at his expense, or by private opportunity. Post mortem examinations, remarkable cases, and histories of epidemics of all kinds, will be acceptable. In short, any well observed and well recorded fact, going to illustrate the causes, symptoms, or treatment of any of our diseases, will be gratefully received. As the morbid appearances in those who have died of our autumnal fevers, have been but imperfectly set forth, in any published accounts, he is extremely desirous of receiving cases of dissection of that kind. He is likewise anxious to obtain accounts of the typhoid fever, and the erysipelatous fever, which, for the last few years, have prevailed in various parts of the West and South.

As he will aim at giving a fuller account of the climate of this region than has hitherto been published, he asks for meteorological observations, from all observers, both in and out of the profession. Those who have published abstracts, will please to send them, and those who have not,

will greatly oblige him, and give additional value to their labors, by furnishing him with manuscript tabular views, presenting monthly extremes and means of temperature and pressure; the courses of the winds reduced to eight points of the compass; the proportion of clear and cloudy days; the dew point, and the quantity of rain.

He would also be pleased to receive an accurate notice of the times, in the ensuing spring, when the following plants begin to unfold their leaves and flowers, and when the latter are full blown:—The peach tree, *(Amygdalus Persica)*—white flowering locust, *(Robinia pseudacacia)*—dogwood, *(Cornus Florida)*—and cotton wood, *(Populas angulata.)* In every case a number of individual trees should be observed, and the aspect of the spot, in reference to the sun, recorded. He wishes the meteorological observations to come down to the end of the present year, 1845—those of a later date he would not be able to use.

As to the time when his work will be ready for the press, the undersigned cannot at present speak with certainty; but all the causes which prevented his laboring upon it, having been overcome, and considerable progress in its composition made, he begins to look forward to its completion at no distant day.

That this notice may the more effectually reach those to whom it is directed, the undersigned would respectfully ask its insertion in those medical Journals which exchange with the Western.

DANIEL DRAKE, M.D.

Medical Institute of Louisville,
December 1st, 1845.

GROSS'S PATHOLOGICAL ANATOMY—*Second Edition.*

We have just received from the publishers, Barrington & Haswell, Philadelphia, and James Maxwell, Louisville, a copy of the second edition of this comprehensive and highly valuable work. Of the first, we were (in several numbers of this Journal) enabled to speak in terms of decided commendation; but the second, thoroughly revised and greatly enlarged, has still stronger claims on our applause. It is comprised in a royal octavo volume of more than 800 pages, on fine paper and in beautiful letter press; and, besides about 250 wood cuts, has many faithfully colored engravings.

Intending, in our next number, to give a more extended notice, we shall limit ourselves, at present, to the mention of some of the new matters introduced into this edition. Among these, we observe, as distinct chapters or sections, *Fistules, Pneumatosis, Polypes, Colloid, Softening of the Brain, Tubercular Arachnitis, Internal Strangulation, Typhoid Fe-*

ter, and Wounds of the Intestines; on the last of which our author, since his first edition, has made an extensive and varied series of experiments, which were published in this Journal, soon after they were completed. Several other articles, as tubercle, suppuration, &c., appear to have been re-written, and, generally, the work affords evidence of careful revision, and many valuable additions.

As this is the first and only systematic work on Pathological Anatomy, which America has yet produced, the profession in the West may justly feel proud, of its second and improved appearance among them. To them, indeed, it must prove a work of greater value than any from abroad, as it contains so many observations on the pathology of the diseases which they are daily called upon to treat. That it will henceforth be regarded as a standard work, and introduced into the library of every physician of the interior, who aims either to educate his pupils thoroughly, or keep himself informed on the improvements of this essential branch of medical and surgical science, we cannot doubt.

DEATH OF DR. HOUGHTON.

By the newspapers, we have learned, with deep regret, that Dr. Douglass Houghton, State Geologist of Michigan, was lately drowned in Lake Superior, on the shores of which he had been for sometime engaged in a mineral survey, for the general government. In our next number we hope to be able to give a sketch of the labors and character of this indefatigable naturalist.

DICKSON'S ESSAYS ON PATHOLOGY AND THERAPEUTICS.

It is rare that we meet with a medical book, printed and published in Charleston, S. C. That, the title of which we have in part just written down, was lately sent to us through Messrs. Morton & Griswold, booksellers of this city. It is from the pen of the distinguished professor of the Institutes and Practice of Medicine in the Medical College of the State of South Carolina, and consists, as he tells us, of the substance of his course of lectures. Its publication would suggest the idea of his resignation, but no indication of that event appears in the book itself. Its title does not very accurately express its true character, as it is, strictly speaking, a work on the theory and practice; written, however, in the familiar style, in which it was spoken before the class. It is comprised in two neatly printed 8vo volumes. Of the first, about 200 pages are devoted to general ætiology

and pathology; the remainder, after a brief general view of inflammation and fever, to particular forms of disease, not very carefully arranged. Being prepared for the instruction of students, it of course contains much with which the physician is familiar; nevertheless, Professor D. has incorporated so much of his own experience, and evinced, on the whole, so sound a judgment, that those who are already versed in the profession, may read it with advantage. We have not found time to do this in a thorough manner, but the perusal of several chapters, and a cursory examination of many more, have convinced us, that it abounds in sound doctrines, nowhere running into ultraism, and practical recommendations, in which great confidence may be reposed. To the students and physicians of the south it must prove a valuable compendium of practice; while those of the north may refer to it with advantage, as affording them data for comparison and contrast. We shall be happy to learn that it makes its way extensively among both classes.

STRYCHNIA IN PARALYSIS.

An interesting case of paralysis occurred under our observation, a few months since, in which strychnia was given with apparent success; we say apparent, because we know how often the relief which ensues upon the use of a remedy is falsely ascribed to the operation of the remedy. The subject of our case was a woman of color, about 55 years of age, whose health for the greater part of her life had been indifferent. For many years she suffered with dysmenorrhœa, attended with obstinate constipation, and the usual constitutional disturbance. About the middle of August while in her ordinary health, except some lameness in her left leg which was thought to arise from a rheumatic affection, she was suddenly seized with paralysis of the left leg and arm, and, as she was standing on the side of a bed at the time adjusting the musquetoe-bar, fell prostrate upon the floor. She was not insensible, however, and was even able to rise and sit on a chair; but, attempting to walk half an hour afterwards, she again fell, and experienced, then, a total loss of power in the leg and arm. She was bled, under the impression that the attack was of an apoplectic character, but we are inclined to think that she derived no benefit from the bleeding, although there was no evidence that it was injurious to her.

Cathartic medicines having been given for a few days she was put upon strychnia, in doses of the sixteenth of a grain, three times daily, and this course was kept up until she had taken six grains. Before she had finished the first vial, containing three grains of the article, she began to recover the use of her arm, the improvement in it being very manifest

from day to day. With the strychnia, during the last three weeks of her confinement, she took five grains of the precipitated carbonate of iron three times a day. At the end of six weeks she was able to walk about her room, and has been now for nearly two months about as active as she was before this attack. It is impossible to say that she was relieved by the strychnia, but the case is deemed one of sufficient interest to be placed on record. Certain it is, that it was a highly unpromising one, the age and previous health of the patient being considered. Y.

TO OUR CORRESPONDENTS.

In finishing our tenth volume, and at the close of the year, we may be permitted to devote a page to those who are, or should be, our correspondents. To the former we beg leave to return our thanks, and hope to hear from them hereafter. To the latter, a much larger number, what shall we say that we have not already said and reiterated? Why, we say, that they are unfaithful to themselves, to us, and to the profession, in not from time to time, committing to record on our pages, some of their daily observations. Not an hour elapses, from year to year, without bringing forth new and important facts, in some parts of our extended country; which from not being published are forever lost to science and humanity. In many instances this omission is the result of habits of indiscrimination or indolence, which every physician should be anxious to correct. In other cases the omission comes from excess of modesty, the individual feeling, or fearing, that nothing he could write would be worthy of publication. This might sometimes be well founded, if nothing but essays or dissertations could be published; but such papers, although most difficult of execution, are in general of least value—are least appropriate to a vehicle like ours, designed to announce original facts and observations, rather than discuss principles. We respectfully appeal to the class of physicians to whom we are now speaking, by the question, whether a week ever elapses, without their meeting with new facts—aspects of disease and effects of remedies—which, if made public, would advance our science and benefit society? We hope and trust, they will take this question to heart, and hereafter act under its suggestions. Now, that we are about to commence a new volume, *we* propose to act, as though *they* would act as we have recommended. We shall, in the editorial head set apart, under the title of—FACTS FROM CORRESPONDENTS, —or some other caption, a number of pages, in which to record the isolated observations of those whom we are addressing. Being thus presented, no one need to fear that they will not be read and appreciated by

all our subscribers; and every one may rely, on their being extracted or noticed, by other journals when they are new and important.

We cannot dismiss this brief appeal, without stating a fact, which shows conclusively the backwardness of our brethren in the matter of writing. The three hundred and forty students of medicine, which make up the present class of the Institute, have not brought us a line for the Journal, although their departure was calculated to suggest to their preceptors and medical friends, the idea of contributions by them. Most ardently do we hope that this will not again be the case.

In conclusion, as this number will reach many of our readers, when the holidays are at hand, we beg leave to offer them the compliments of the season; and trust, that when they have collected their yearly accounts, and find themselves in good spirits and with but little to do, they will not forget that they have an annual contribution of their experience to make to the profession, and that we shall gladly aid them in the discharge of that duty. EDS.

ALABAMA MEDICAL UNIVERSITY.

A medical *university!* That is something new. A university has been considered an institution of several departments—an assemblage of colleges, in which, besides mathematics, the languages, et cetera, medicine, law, and theology are taught. But that is not the notion, it seems, among the law-makers of Alabama. They have chartered a *medical* university, and its Faculty are steam doctors—"purely of the Thomsonian order," as the faculty themselves avow. These *teachers (doctors)* proclaim to the world, "that an epoch in the history of Alabama will *bare* on the first Monday in November, 1845," when the lectures in their *university* commenced. It is an epoch, sure enough. Most signally does it illustrate the boasted "march of mind" in our age. It is a burlesque upon medical schools. One might suppose that the legislature of Alabama was seeking to bring the medical profession into contempt, when they granted such a charter. But it is not so. It was only giving the "largest liberty." Wetumpka is the honored seat of this "medical university," and we shall not be surprised to hear that these doctors of the "Thomsonian order," have had pupils. The legislators who voted for the charter ought to send their sons there. Y.

THE NATURALIST.

Such is the title of a monthly publication projected by the Faculty of Franklin College, near Nashville, in Tennessee, which is to be devoted to

geology, mineralogy, zoology, entomology, botany, and agricultural chemistry. President Fanning has charge of the department of horticulture and agriculture; the department of natural history is confided to Professor I. N. Loomis. We can answer for the devotion of these gentlemen to the branches of science respectively assigned to them. Mr. Fanning is an ardent lover of the country, and a zealous, persevering, and enlightened friend of agriculture. Mr. Loomis is engaged in the cultivation of geology and its kindred sciences with a zeal which promises much to the natural history of the West. We heartily wish them success in this enterprise, as well as in their laudable effort to blend learning with the cultivation of the soil. Physicians are interested in whatever relates to the science of living beings, and compose a class of readers who would find amusement and instruction in the pages of the Naturalist, Y.

THE NEW YORK MEDICAL AND SURGICAL REPORTER.

We have received three numbers of a journal with the above title, edited by *Clarkson T. Collins*, M.D., which is to be issued once a fortnight, in numbers of eighteen pages, at $2 per annum. As its name imports, it is to be a reporter of matters medical and surgical, and will contain the clinical lectures of the most eminent medical men in the city of New York. The numbers before us embrace several such lectures from Professors Mott and Parker. Much original matter may be expected in the pages of a journal which draws from such sources as appear to be at the command of the Reporter, and we shall be disappointed if it prove not to be a valuable repository of facts and observations. Y.

NEW YORK MEDICAL INTELLIGENCER.

This is the title of another periodical devoted to medicine, and emanating from the same city, which has lately taken its place among the journals of the day. The seventh number has been placed on our table. It is in the form of a newspaper, well printed, and contains 16 pages; thirteen numbers will constitute a volume, and the subscription is $2 per annum. It is edited by *D. S. Meikleham*, M.D. Like its young contemporary above noticed, it has a full table of contents, which is a feature that will command the applause of every reader, and especially of every editor. Another feature that we like in it, is its excellent arrangement. The matter is arranged under distinct heads, by which the reader may refer without trouble to any topic concerning which he is in search of instruction. It purports to be eclectic, and this number consists entirely of

selected articles. They are also select, evincing in the editor capacity for the task he has assumed. We feel assured, from the specimen before us, that the Intelligencer will be found to be an interesting and valuable medical newspaper. Y.

STOCKTON'S DENTAL INTELLIGENCER.

This journal has reached its second volume, the first number of which making 22 pages, we received a few days since in exchange. It is conclusive proof of the general interest felt in dentistry, that two periodicals devoted to that branch of the art can be supported in this country. Among the articles contained in this number we find one of Mr. Liston's lectures, and altogether it is made up of matter interesting to every practitioner. Y.

MEDICAL INSTITUTE OF LOUISVILLE.

The Catalogue of the officers and students of this instiution will be published on the first of January, and will show the largest class that has yet been assembled in any Western school of medicine.

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